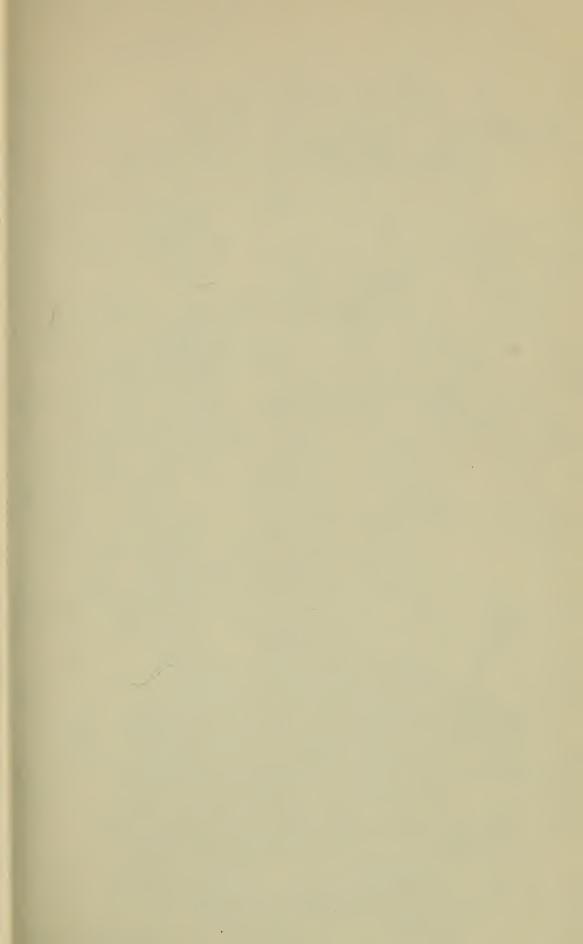


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OFFICIAL REGISTER OF HARVARD UNIVERSITY

VOL. LX

FEBRUARY 15, 1963

NO. 2

HARVARD MEDICAL SCHOOL



AND
SCHOOL OF DENTAL MEDICINE

1962-1963

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SCHOOL OF DENTAL MEDICINE

188 LONGWOOD AVENUE BOSTON 15 * MASSACHUSETTS



1962-1963

WITH AN ANNOUNCEMENT FOR 1963-1964

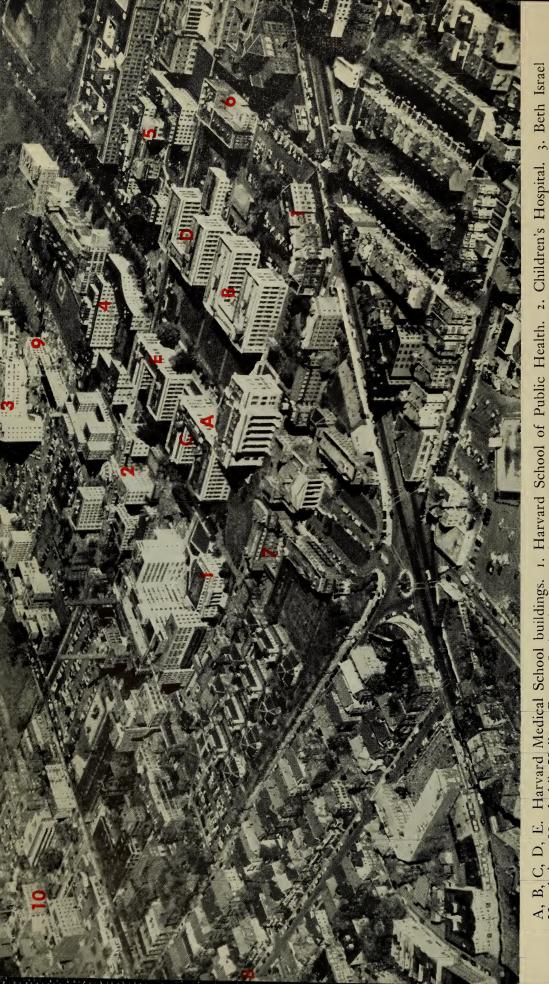
PUBLISHED BY HARVARD UNIVERSITY CAMBRIDGE, MASSACHUSETTS

The Offices of Administration of the Medical School are located in the Administration Building at 25 Shattuck Street, Boston; those of the School of Dental Medicine, at 188 Longwood Avenue, Boston.

The office of the President of the University is located at One Massachusetts Hall, Cambridge.

The Comptroller's Office is in Lehman Hall, Cambridge. It is open on all business days from 9:00 a.m. to 5:00 p.m., except Saturdays, for the receipt of fees, payments, and other financial business.





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ACADEMIC CALENDAR FOR 1962-63

Monday	June 11	Summer courses begin for fourth year class.
Wednesda	yJuly 4	Independence Day: a holiday.
Monday		Labor Day: a holiday.
Friday		Registration day for first and second year classes.
Monday	September 17	Academic year begins for first and second year classes.
Friday	September 21	Registration day for third year class.
Monday	September 24	Academic year begins for third year class.
Thursday	September 27	Registration day for fourth year class.
Friday		Columbus Day: a holiday.
Monday	November 12	Veterans' Day: a holiday.
Thursday	November 22	Thanksgiving Day: a holiday.
		Second trimester begins for third year class.
		Recess for first, second, and third year
	y 6, 1963	classes.
Monday	January 14	Second half year begins for second year class.
February 4	t-8	Examination period for first year class.
Monday	February 11	Second half year begins for first year class.
Friday	February 22	Washington's Birthday: a holiday.
Monday	March 11	Third trimester begins for third year class.
Monday	April 1	Last day for filing application for the degree of M.D. in June 1963.
		Last day for filing application for scholar- ship for 1963-64.
April 14-2	ı	Recess for first, second, and third year classes.
Thursday	May 30	Memorial Day: a holiday.
Friday	May 31	Alumni Day.
_	June 1	Class Day for the Class of 1963.
June 3-8	,	Examination period for second and third
		year classes.
Monday		Second half year ends for first year class.
Thursday	June 13	Commencement.

ACADEMIC CALENDAR FOR 1963-1964

Monday	June 10	Summer courses begin for fourth year class.
Thursday	July 4	Independence Day: a holiday.
Monday	September 2	Labor Day: a holiday.
Friday		Registration day for first and second year classes.
Monday	September 16	Academic year begins for first and second year classes.
Friday	September 20	Registration day for third year class.
Monday	September 23	Academic year begins for third year class.
Thursday		Registration day for fourth year class.
Saturday		Columbus Day: a holiday.
Monday		Veterans' Day: a holiday.
•		Thanksgiving Day: a holiday.
		Second trimester begins for third year class.
December	22, 1963-	Recess for first, second, and third year
	ry 5, 1964	classes.
	January 13	Second half year begins for second year class.
February 3	3-7	Examination period for first year class.
	February 10	Second half year begins for first year class.
Saturday	February 22	Washington's Birthday: a holiday.
Tuesday	March 10	Third trimester begins for third year class.
Wednesda	y April 1	Last day for filing application for the degree of M.D. in June 1964.
		Last day for filing application for scholar- ship for 1964-65.
April 12-1	9	Recess for first, second, and third year
•		classes.
Friday	May 29	Alumni Day.
Saturday	May 30	Class Day for the Class of 1964.
Saturday	May 30	Memorial Day: a holiday.
June 1-6		Examination period for second and third year classes.
Monday	June 8	Second half year ends for first year class.
Thursday		Commencement.

THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE

This Board is commonly known as the Corporation

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NATHAN MARSH PUSEY, Ph.D., LL.D., L.H.D.

FELLOWS

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Secretary to the Corporation David Washburn Bailey, A.B.

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The President and the Treasurer of the University, ex officio, and the following persons by election:—

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LAWRENCE EDWARD MALLINCKRODT, A.B., M.B.A.
JOHN FITZGERALD KENNEDY, S.B., LL.D., D.A.O., S.D. (hon.),
DR.P.A. (hon.), Litt.D.

1964

Francis Boyer, LL.D.

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Alexander Moss White, A.B., LL.D.

William Gurdon Saltonstall, A.M., L.H.D., LL.D., Litt.D.,

Dr.P.A. (hon.), J.D. (hon.)

Edwin Allan Locke, Jr., A.B.

1965

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JOSEPH EDWARD LUMBARD, JR., A.B., LL.B.
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1966

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1967

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Paul Cashman Reardon, A.B., LL.B.
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James Brown Fisk, A.M. (hon.)

1968

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Assistant Secretary of the Board of Overseers

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*(The term expires, in each case, on Commencement Day of the year indicated.)

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HUDSON HOAGLAND
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Dean of the School of Dental Medicine: Roy Orval Greep, S.M., Ph.D.

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Associate Dean for Student Affairs of the Faculty of Medicine: Joseph Warren Gardella, M.D.

Associate Dean for Academic Affairs of the Faculty of Medicine: George Nichols, Jr., M.D.

Assistant Dean for Courses for Graduates of the Faculty of Medicine: Eugene Charles Eppinger, M.D.

Assistant Dean for Admission of the Faculty of Medicine: Perry James Culver, M.D.

Assistant Dean of the School of Dental Medicine for Student Affairs: JAMES HOWARD OAKS, D.M.D.

Secretary of the Faculty of Medicine: Manfred Leslie Karnovsky, Dr.Phil.

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Assistant for Planning and Development to the Dean of the Faculty of Medicine: Laurence Orlen Pratt, A.B.

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HISTORY AND ORGANIZATION OF THE HARVARD MEDICAL SCHOOL

The Harvard Medical School was the third medical school to be established in the United States and is the second oldest in point of consecutive years of service to medical education.

The first medical school founded in the Colonies was established in 1765 in the College of Philadelphia, now the University of Pennsylvania. The second was organized in 1767 in Kings College (now Columbia University) but teaching was suspended in 1776.

The Harvard Medical School is now nearing the close of its second century of teaching dedicated to the treatment and

prevention of the ills of man.

On September 19, 1782 the President and Fellows of Harvard College adopted a report by President Joseph Willard and former Acting President Edward Wigglesworth embodying a plan for a medical school. This action was followed on November 22, 1782 by the appointment of Dr. John Warren of Boston as the first Professor of Anatomy and Surgery. In December, 1782, Dr. Benjamin Waterhouse became Professor of the Theory and Practice of Physic. The original faculty was completed in May, 1783, when Dr. Aaron Dexter was named Professor of Chemistry and Materia Medica.

The first degrees of Bachelor of Medicine were conferred in 1788. Until 1811, the degrees of Bachelor of Medicine and Doctor of Medicine were conferred, the former on graduation from the Medical School, the latter on examination at least seven years after graduation. In 1811 the degree of Doctor of Medicine was granted to graduates of that year and to earlier graduates who had not been admitted to it. All graduates since 1811 have received the degree of Doctor of Medicine.

During its long history, the Medical School has occupied seven

different sites. The first classes were held in the basement of Harvard Hall in the Harvard College Yard. Later they were transferred next door to Holden Chapel, a building which was originally the College Chapel but through the years has served as a carpenter shop, a chemistry laboratory, a museum, and is now the home of the Harvard Glee Club. To be close to such hospital facilities as might be developed in Boston, the Medical School, in 1810, was moved out of the Yard to quarters at 49 Marlborough Street (now 400 Washington Street) in Boston. Six years later, the Medical School occupied the first structure built especially for its use, located on Mason Street in Boston. At this time, and for a period of 42 years thereafter, the School bore the title of "The Massachusetts Medical College of Harvard University."

In 1847, new quarters were established on North Grove Street opposite the Massachusetts General Hospital and here the School remained until 1883, when the move was made to 688 Boylston Street and a building that was expected to be the "home of medicine for generations." The School's vigorous growth soon made these quarters inadequate. Accordingly, the five marble buildings that today form the Longwood Avenue Quadrangle were erected. At their dedication on September 25, 1906, Dr. Charles W. Eliot, President of the University, in his acceptance address, described them as: "The largest single addition to the resources of the University which has ever been placed in the hands of the Corporation since it received its charter in 1650."

These buildings were built on 11 acres of an original 26 acre tract, the remaining 15 acres being reserved for the hospital facilities that, it was expected, would be built around the School. Four hospitals and the Harvard Schools of Dental Medicine and Public Health are now located in this general area.

Prior to 1906 most clinical teaching was carried on in the Massachusetts General and Boston City Hospitals. Opportunities for clinical teaching and investigation have increased greatly since the Longwood Quadrangle was established, through the new hospitals surrounding the School and affiliated with it. Few other

medical schools can offer students the tremendous variety of clinical advantages, which, from the student viewpoint, are not a matter of large hospitals only, but rather are related to the number of patients in these hospitals who are under the care of instructors on the staff of the Medical School and thus available for teaching purposes. Each student comes into intimate contact, under supervision, with patients, beginning in the second half of the second year. This student-patient relationship grows steadily during the third year. In the fourth year students serve as clinical clerks and give their whole time to the study of patients.

BUILDINGS

The Administrative Building (A), with 60,000 square feet of floor space, contains the Faculty Room, the Administrative Offices of the Medical School, the Alumni Office, the Courses for Graduates Office, the joint library of the Medical School and the School of Public Health, the Warren Anatomical Museum, the News Office for the Medical Area, and the teaching laboratories for Histology and Neuroanatomy.

The laboratory buildings, designated by the letters B, C, D, and E, were all constructed on the same general plan—two parallel wings united at the front by an amphitheatre with a seating capacity of two hundred and fifty. To keep pace with present day requirements, the original facilities are continually being adapted, remodeled and even rebuilt while preserving the outside walls. In Building B, added research laboratories and teaching facilities have replaced the amphitheatre. Both the smaller rooms and the laboratories are designed on a unit system which greatly simplifies changes required in suiting these rooms to the future needs of departments. The amount of floor space varies considerably in each of the four buildings.

Building B accommodates the Departments of Anatomy and Pharmacology. In this building each wing has five floors and a total floor space of 132,000 square feet.

Building C provides space for the Departments of Biological Chemistry, Physiology, and the Office of the Division of Medical Sciences. In this building each wing has four floors and a total floor space of 92,000 square feet.

Building D is occupied by the Departments of Bacteriology, Pathology, Preventive Medicine, the Division of Medical Sciences, the Biophysics Laboratory, and laboratories of the Department of Medicine. In this building there are five floors in one wing and three floors in the other, with a total floor space of 85,000 square feet.

Building E houses the Department of Legal Medicine, the Department of Tropical Public Health of the School of Public Health and teaching facilities for Gross Anatomy. A new addition provides quarters for Surgical Research. There are three floors in one wing and four floors in the other, with a floor space of 62,000 square feet.

Vanderbilt Hall, the student dormitory, was opened in 1927 and is immediately adjacent to the Medical School buildings.

SCHOOL OF DENTAL MEDICINE

Founded in 1867, the Harvard School of Dental Medicine was the first university affiliated school for dentistry in the United States. The School, a responsibility of the Faculty of Medicine since 1899, offers a four year course that leads to the degree of Doctor of Dental Medicine.

During the first two academic years the courses of instruction are nearly identical with those of the Medical School. The third and fourth years are under the direct supervision of the staff of the School of Dental Medicine. The recipient of the degree of D.M.D. from the School of Dental Medicine is well prepared to meet State Board requirements for license to practice dentistry. Graduates are also ready for the advanced study and experience recommended for any of the specialties of dentistry.

Access to the research laboratories of the School in the elective

time during the third and fourth years permits unusual training

for those having dental research in mind as a career.

The requirements for admission parallel those of the Medical School, except that the Dental Aptitude Test is required in place of the Medical College Admission Test. Qualified students and graduates of approved medical schools who wish to specialize in dentistry may be admitted to the School of Dental Medicine with advanced standing.

A brief description of the program of the School of Dental Medicine can be found in the back of this Catalogue. Full details are available in the Dental School's Official Register.

LIBRARIES

The Library of the Schools of Medicine and Public Health consists of:

Main Library (Administration Building, 2d floor)

Open: 9 a.m.-10 p.m. weekdays 9 a.m. - 5 p.m. Saturdays 2 p.m.- 6 p.m. Sundays

Anatomy Library (Building B, 3d floor)
Bowditch Library of Physiology and Biochemistry (Building C, 3d floor)

George Burgess Magrath Library of Legal Medicine (Building E, 3d floor)

Library of Dental Medicine (188 Longwood Avenue)

Lucien Howe Library of Ophthalmology (at the Massachusetts Eye & Ear Infirmary)

The card catalog in the Main Library shows the holdings of these libraries which contain 340,000 catalogued volumes and

pamphlets and receive 1,750 periodicals currently.

The Main Library contains several collections of historical interest. The largest of these is the Warren Library, consisting of books and pamphlets on scientific and medical subjects collected by five generations of the medical men in one family. The Li-

brary was started by Dr. John Warren, first Professor of Anatomy and Surgery in the Medical School (1782), and was bequeathed to Harvard University by Dr. John Warren who taught Anatomy in the School from 1901 to 1928. The collection spans the years between 1476 (Caius Pliny, Secundus: Historia Naturalis) and 1928. Among the rarer volumes are Andreas Vesalius' De Humani Corporis Fabrica (1543), and William Harvey's De Motu Cordis et Sanguinis in Animalibus (1639).

All members of the University may borrow from the College Library at Cambridge. Messenger service is provided daily from the College Library and various other University Libraries.

The Boston Medical Library, located at No. 8 The Fenway, is the third largest medical library in the United States. It contains 230,000 cataloged volumes, 160,000 cataloged pamphlets, and 1,300 periodical titles currently received. Author cards for its books are filed in the Harvard Medical School catalog, and books and periodicals are available by messenger. Students wishing to go to the Boston Medical Library to read may do so weekdays 9 a.m. to 5 p.m., Saturdays 9 a.m. to 1 p.m. and evenings Monday and Thursday until 9 p.m.

The Boston Public Library issues cards to permanent and to temporary residents of Boston. Others may obtain cards upon payment of a small fee. Other Libraries of the Boston area, notably those of the Massachusetts Institute of Technology, add to the total book and periodical resources available to students.

The librarian is Ralph T. Esterquest, and Dale Friend is chairman of the Library Committee of the Faculty.

WARREN ANATOMICAL MUSEUM

The Warren Anatomical Museum was founded in 1847 by John Collins Warren, of the College Class of 1797, Adjunct Professor of Anatomy and Surgery from 1809 to 1815, Hersey Professor of Anatomy and Surgery from 1815 to 1847, Professor

Emeritus from 1847 to his death in 1856, son of John Warren, the first Hersey Professor of Anatomy and Surgery.

The Curator of the Museum is Dr. Don W. Fawcett, Hersey Professor of Anatomy and the Associate Curator, Dr. George E.

Erikson, Assistant Professor of Anatomy.

The collection comprises several thousand specimens illustrating both normal and pathological anatomy. These include dissections, skeletons, viscera, and the Dwight Collection illustrating skeletal variations and cross sections of bones. There is a growing number of gross neuropathological specimens and an extensive series of total brain sections prepared under the direction of the former Curator, Dr. Paul I. Yakovlev. These are available for study by qualified graduate students upon application to the Department of Neuropathology.

A unique collection of primate skeletal material is located in the Museum, including over a thousand specimens representing all of the New World and many of the Old World genera. These are available to graduate students upon application to Dr. Erikson

of the Department of Anatomy.

Also housed in the Museum are the records of the Longitudinal Studies of Child Health and Development conducted between 1929 and 1960 by Dr. Harold C. Stuart, Professor *Emeritus* of Maternal and Child Health at the Harvard School of Public Health. These records pertain to 134 children followed from birth to their eighteenth year and 175 other children followed from birth for shorter periods. The data include health histories, radiographs of skeletal development, body measurements, measurements of intelligence and observations on the family and home environment. Permission to use these records for research purposes may be obtained through the Department of Maternal and Child Health, Harvard School of Public Health.

HOSPITAL FACILITIES

THE MASSACHUSETTS GENERAL HOSPITAL

This general hospital, founded in 1811, in great part owes its existence to the foresight and ambition of two Harvard College graduates, Dr. John Warren, who became the first Surgeon-in-Chief, and Dr. James Jackson, the first Physician-in-Chief. Dr. Warren, in 1782, was named the first Professor of Anatomy and Surgery in the Medical School.

In a circular letter addressed (August, 1810) "to the most influential and wealthy citizens of Boston," Drs. Warren and Jackson noted the benefits that would accrue to the ill of the community through establishment of a hospital, and to the collateral advantages that would follow.

Among the latter, they wrote, "are the facilities for acquiring knowledge which it (the hospital) would give to the students in the medical school (Harvard) established in this town."

In 1811 the Massachusetts Legislature approved an Act to "incorporate certain persons, by the name of The Massachusetts General Hospital." The list of incorporators read much as a "Who's Who" of early America. Prominent in the list were the names of John Adams and John Quincy Adams.

The original charter sets out that the hospital was to care for the sick and insane persons of the Commonwealth.

The close and salutary relationship established at the outset between the Medical School and the Hospital has continued to the present.

In the Hospital there are services in medicine, surgery, pediatrics, dermatology, genito-urinary diseases, orthopedics, gynecology, neurology, neurosurgery, anaesthesia, dental medicine and psychiatry, all of which are used in giving instruction in these special departments of medicine. The Hospital has 956 beds, 478 of them being available for teaching purposes. In the General Hospital, 13,598 patients were admitted in 1962. Large clinics are also used for instruction in the above clinical subjects. Clinic

visits numbered 204,583 last year, of which 12,336 were first visits of new patients. There were 42,792 patients treated in the emergency ward. Laboratories for pathology, bacteriology, chemistry, metabolism, medical and surgical research, and X-ray are maintained, and there is an excellent medical library, all of which are open to students in the Medical School.

In 1942 arrangements were made with the Vincent Memorial Hospital and the Hall-Mercer Hospital to care for their patients in the Massachusetts General Hospital. The Vincent occupies the three lower floors of the Vincent-Burnham Building, with the three floors above comprising the Burnham Memorial for Children.

In 1943 the Collis P. Huntington Memorial Hospital and its associated laboratories of the Harvard Cancer Commission were transferred from their former location adjacent to the Medical School to the buildings of the Massachusetts General Hospital.

McLean Hospital

This hospital, situated in Belmont, is a division of the Massachusetts General Hospital for the care and treatment of patients with all types of psychiatric disorders. McLean Hospital was the first hospital in New England and is the third oldest mental hospital in the United States. It has a complement of 237 beds, with approved capacity of 278 beds, and has been a teaching hospital connected with the Harvard Medical School for many years. During the past fiscal year 353 patients were admitted to the hospital and 333 patients were discharged. It is equipped with laboratories for research in clinical physiology, neuropathology and neurochemistry, and clinical psychology. It maintains an experimental program in clinical application of social anthropology and sociology.

THE MASSACHUSETTS EYE AND EAR INFIRMARY

The Infirmary, incorporated in 1827, and associated with the Harvard Medical School since 1866, is a volunteer specialty hos-

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pital engaged in patient care, research and teaching in the fields of Ophthalmology and Otolaryngology. The Chiefs of these two clinical services are jointly appointed by the Infirmary and the Medical School, where they also hold the title of professor.

Many members of the Medical Staff also serve on the Faculty and give instruction to the medical students both at the School and at the Infirmary itself where most of the 172 beds are available for teaching. The short average patient stay results in high occupancy and in 1962, 9,678 patients were admitted, of whom 9,589 had operations.

Although the Infirmary and its neighbor, the Massachusetts General Hospital, are separate and independent institutions, they join together in the operation of ambulatory clinics. In 1962, the Eye and the Ear, Nose and Throat clinics together recorded

69,478 patient visits.

Eye research at the Infirmary is conducted mainly by the Howe Laboratory of Ophthalmology which, though a department of the Medical School, has been housed at the Infirmary since 1932. Otolaryngological research includes three basic research laboratories one of which is the Eaton-Peabody Laboratory of Auditory Physiology, a joint venture of the Infirmary and Massachusetts Institute of Technology. The Ear, Nose and Throat Department is currently establishing new research laboratories in histopathology and histochemistry.

THE BOSTON CITY HOSPITAL

This hospital with all its divisions contains 1,500 beds, including 107 bassinets for newborn and 110 beds for infants and children. Over 300 are available to the teaching units of the Medical School. The Second and Fourth Medical Services, the Fifth Surgical Service, and the Neurological, Neurosurgical and Radiological Services are under the direction of Professors of the Harvard Medical School, and in addition there are other specialties open to our students. In the Out-Patient Department and Accident Floor there were 416,543 patient visits during the year 1962.

The Thorndike Memorial Laboratory, established in 1923 for medical research, includes a metabolism ward and is an integral part of the Harvard Medical Unit. It is an internationally known center of medical investigation in the treatment of blood disorders, infectious diseases and disorders of the liver, kidney, thyroid and heart. The Sears Surgical Laboratory, established in 1955 as part of the Harvard Surgical Unit, is associated with the Fifth Surgical Service under the direction of the Professor of Surgery who is Head of that Service. It provides a modern amphitheatre, conference rooms, animal quarters, library, and laboratories for surgical research. The Departments of Neurology and of Pathology also maintain active research laboratories. In addition there are well-equipped service laboratories for pathology, chemistry, metabolism, and immunology. Four amphitheatres and various conference rooms are used in student instruction. The hospital maintains an admirable general working library and two special libraries.

THE PETER BENT BRIGHAM HOSPITAL

This hospital since its dedication in 1913 has been closely associated with the Medical School. The hospital, equipped for teaching and research in physical diagnosis, medicine, surgery, radiology, and pathology is situated on grounds adjacent to the Medical School buildings. The Chiefs of Service are Professors of the Faculty of the Medical School. There are 315 beds, all of which are used for teaching purposes. During the past year, 7,200 patients were admitted. There are also an out-patient service and an emergency ward for ambulatory medical and surgical patients. The total number of visits to these facilities last year was 58,107. There are well-equipped medical, surgical, and pathological laboratories. The hospital has a School of Nursing and the oldest program in the country for dietetic interns. Also located within the hospital are the offices of the Medical Area Health Service.

HOSPITAL FACILITIES

THE BETH ISRAEL HOSPITAL

This is a general hospital with a capacity of 410 beds (including 20 pediatric, 56 obstetrical, and 62 bassinets). In addition to the ward beds many private beds are available for teaching. Incorporated in 1916, this institution has been located on Brookline Avenue around the corner from the Harvard Medical School since 1928 and has a close working relationship with it. The hospital is equipped for teaching and research in medicine, surgery, obstetrics and gynecology, pathology, pediatrics, psychiatry, and radiology, each under the direction of one or more full-time physicians who are members of the Faculty of the Harvard Medical School. There are also electrocardiograph, electroencephalograph, chemistry and metabolism laboratories, animal research facilities, a radiology department with facilities for X-ray therapy, and a department of physical medicine and rehabilitation. During the past year, more than 35,000 patients received care through this Hospital as in-patients, out-patients, in emergency ward or through the Home Care Program. Out-patient visits totalled 58,000 and more than 15,000 visits were made to the Emergency Ward. There were 12,000 patients admitted to the Hospital and 2,600 deliveries.

THE CHILDREN'S HOSPITAL MEDICAL CENTER

This is an affiliation of ten voluntary institutions concerned with the care of children, with teaching, with research, and with child health. Included are the following:

The Children's Hospital

This hospital has been located on Longwood Avenue adjacent to the Medical School since 1914. It is a general hospital for the care of children from infancy through adolescence. Pediatric, surgical, neurosurgical, orthopedic, dental, radiologic, psychiatric, pathologic, and otolaryngologic services with their associated specialties are maintained. Special clinical facilities are provided

for adolescents. There are 350 beds, with an average daily census in 1962 of 230 patients. During the year ending September 30, 1962, it rendered 92,840 days of care to 9,623 in-patient admissions. (These figures are inclusive of The Children's Hospital, Infants' Hospital, Sharon Sanatorium, The House of the Good Samaritan, and the Judge Baker Guidance Center.) In addition, there were 87,245 visits to 41 out-patient clinics. Full laboratory and diagnostic services are provided for the study of material from the house and out-patient services.

The Sharon Sanatorium

This organization sponsors the Sharon Cardiovascular Unit composed of 25 beds devoted to the care of non-rheumatic cardiovascular disorders including congenital heart disease. It is included in The Children's Hospital as described above.

The Infants' Hospital

Originally the Thomas Morgan Rotch, Jr. Memorial Hospital for Infants, this hospital operated in close conjunction with The Children's Hospital from 1923 to 1961, at which time there was a complete merger. There are 41 beds which are devoted to the care of infants in addition to a separate neonatal nursery accommodating 12 infants under the age of one month, including prematures.

The House of the Good Samaritan and The Hospital and Convalescent Home for Children

The House of the Good Samaritan is situated at 25 Binney Street adjacent to the Medical School. There are 54 beds devoted to the care of long-term and convalescent patients and to the study of rheumatic fever and rheumatic heart disease.

The Hospital and Convalescent Home for Children was formerly situated in Wellesley Hills.

In February, 1959, the renovated Good Samaritan building was reoccupied and became a long-term and convalescent care facility

HOSPITAL FACILITIES

of the Children's Hospital. The Hospital and Convalescent Home for Children was closed about the same time and its activities transferred to the Good Samaritan. This now provides 54 beds including 13 beds for respirator cases on patients requiring long-term orthopedic care. The study and treatment of rheumatic diseases continues. Out-patient clinics are held regularly as a part of this research program. The building also houses the endocrine laboratories of The Children's Hospital.

The Children's Mission to Children

A social service organization, cooperating in home care and placement programs for children affected by illness and in need of such service.

The Children's Cancer Research Foundation

An independent institution working, with its staff and facilities integrated with those of The Children's Hospital Medical Center, provides, in conjunction with its research program, care and treatment to children with disseminated cancer.

The Judge Baker Guidance Center

A child psychiatry clinic whose treatment, training, and research programs are affiliated with those of the Department of Psychiatry of The Children's Hospital Medical Center. The in-patient service has 26 beds. This unit has constructed a building in close proximity to The Children's Hospital, expanding and integrating the program in psychiatry.

THE BOSTON LYING-IN HOSPITAL

This hospital occupies a building started in 1922 at 221 Longwood Avenue. Richardson House, the private wing, was completed in 1930. There are 175 beds, of which 54 are on the ward service and 121 are on the private service. During the past year there were 8,134 adult admissions to the hospital. A total of 6,166 births were recorded. Chemistry, Pathology, Bacteriology,

Cytology and Blood Bank Laboratories, and a well-equipped X-ray department are available for research. The Hospital which was founded in 1832 has been in continuous existence since 1873.

THE FREE HOSPITAL FOR WOMEN

This hospital is devoted exclusively to the care of women, with emphasis on the treatment of diseases peculiar to them. It has 90 beds, of which at least 32 are available for teaching. In 1961–1962, 3,110 patients were admitted, of whom 2,873 were operated on. In the out-patient department 11,629 patients were seen during this time, of whom 1,376 were new. In addition to standard laboratory facilities and a library, it has laboratories for research, oriented chiefly toward pathology, reproduction and neoplasia.

Massachusetts Mental Health Center (formerly the Boston Psychopathic Hospital)

This is a state institution for acute, curable, incipient, and doubtful cases of mental disease. The hospital was opened to patients in June, 1912 as a department of the Boston State Hospital. It became a separate institution in 1920. It has 200 beds, of which 14 are available for children. All of the beds are available for teaching and receive patients at the rate of about 1,000 a year. The hospital is equipped with psychological, clinical, biochemical, and research laboratories. The out-patient department which is made up of an adult and child division in 1960–61 received 3,725 new patients — total patient days during this period numbered about 28,291. In addition to the psychoses and neuroses, the clinical material includes cases of maladjustment, personality problems, behavior disorders of childhood and mental defect.

NEW ENGLAND DEACONESS HOSPITAL

A 375-bed general hospital which includes the Deaconess, Central, George F. Baker and the Palmer Memorial buildings for general beds; the Hospital Teaching Unit for ambulatory patients;

HARVARD MEDICAL CENTER

the Norwich House for patients requiring intensive short-term psychiatric care, and the Cancer Research Institute. Sections of the hospital are especially equipped for diabetics; other sections are devoted to cancer, neurosurgery and thoracic surgery. It owns deep therapy equipment including a two million volt X-ray machine and radium. It maintains a Social Service department, outpatient tumor clinic, out-patient clinic for those receiving shock therapy and conducts numerous research projects.

VETERANS ADMINISTRATION HOSPITAL (WEST ROXBURY)

This is a 304-bed hospital for the care of general medical and surgical patients, incorporating a center for the care of patients with spinal cord injuries. It is also a center for cardiovascular surgery. All the beds are available for teaching; there were 2,570 admissions during 1962.

The hospital is administered by the Veterans Administration but is professionally closely associated with the Peter Bent Brigham Hospital (8 miles distant), with which it is affiliated for the training of residents. It has complete laboratory and X-ray facilities, a research laboratory, and its own library.

Other hospitals in the Greater Boston area in which some teaching activities are carried on include: Long Island Hospital (physical diagnosis); Lemuel Shattuck Hospital; Metropolitan State Hospital; Middlesex County Sanatorium; Mt. Auburn Hospital (radiology); Peabody Home for Crippled Children; Pondville State Hospital and the Robert Breck Brigham Hospital.

HARVARD MEDICAL CENTER

A corporation known as the Harvard Medical Center was formed in 1956 by the Harvard Medical School and seven of its teaching hospitals ". . . to improve and advance the knowledge, practice and teaching of medicine; to assist in the advancement

of medical research and investigation and the improvement of medical teaching facilities."

The Center's Board of Trustees is made up of the Dean of the Faculty of Medicine, who serves as President, and a representative from each of the participating institutions, which are:

Harvard Medical School
Beth Israel Hospital
Boston Lying-in Hospital
Children's Hospital
Free Hospital for Women
Massachusetts Eye and Ear Infirmary
Massachusetts General Hospital — McLean Hospital
Peter Bent Brigham Hospital

Harvard is exceedingly fortunate in having both privately endowed and tax-supported teaching hospitals associated with the Medical School through joint faculty appointments, joint teaching responsibilities and joint research undertakings to foster maximally the correlation of teaching, research and patient care.

Tax-supported hospitals cannot legally be part of the Harvard Medical Center and it is for this reason that such important teaching hospitals as the Boston City Hospital, the Massachusetts Mental Health Center (formerly the Boston Psychopathic Hospital) and the West Roxbury Veterans Administration Hospital are not member institutions.

REQUIREMENTS FOR ADMISSION

In general, the Faculty of Medicine consider for admission students in good standing in arts or in sciences or graduates of colleges listed as approved in the "Higher Education Directory," published by the Office of Education of the United States Department of Health, Education, and Welfare, or in any of the institutions included in "Approved Colleges of Arts and Sciences," published by the Council on Medical Education and Hospitals

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of the American Medical Association. Credentials from foreign universities, in most cases, must be supplemented by a year or more of work in an approved university in the United States. Candidates for admission to the first year class must present evidence satisfactory to the Committee on Admission, not simply showing that they have passed the courses necessary to fulfill the requirements, but also that their college work and other credentials have been of such character as to give promise of work of high quality in the medical course.

The physician-of-the-future will function at the junction of the natural sciences, the social sciences, and the humanities. To fulfill his role, he should have had educational experience in all these areas of knowledge. This is best accomplished when secondary school, college, and medical school are viewed as a continuum.

The following are the minimal requirements to be met:

English: Basic skill in the English language, including the facility for clear expression in both the spoken and written medium, as evidenced by at least four years of study of English composition and literature, no less than one of these years being at the college level.

Foreign Language: Competence in a foreign language, either modern or classical, not merely to increase ability to read more extensively in the medical literature, but to increase understanding of language itself and the help this provides in developing the art of communication. Such an understanding presupposes the equivalent of at least two years of study at the college level. If an applicant has fulfilled the language requirement for a Bachelor's degree by obtaining a sufficiently high score on the College Board examination or by passing a college language placement test, he will be considered to have met the language requirement for admission to the Harvard Medical School. In such cases, however, an advanced course in the same foreign language is strongly recommended.

Mathematics: Mathematics, the language of science, is becoming an increasingly important tool for the successful study of medicine. Mathematics through one year of integral calculus, therefore, is strongly recommended.

These basic skills in language and mathematics, which can be acquired in secondary school or in college, should be pursued in the former to the extent that an opportunity is available.

Chemistry: The equivalent of sixteen semester hours of chemistry in college, divided about equally between inorganic and organic, is required. It is important that this experience in chemistry include adequate time in the laboratory and familiarity with quantitative techniques, including volumetric analysis.

Biology: The student must have taken a general course in biology, which has emphasized the structure, function, natural history, and evolution of plants and animals. A satisfactory course should provide in college credits at least eight semester hours and adequate laboratory time.

Physics: College credit for eight semester hours must be offered.

Recommended Courses: Experience in physical chemistry, comparative anatomy, embryology, and genetics will be helpful during the first two years of medical school. Courses in psychology and the social sciences have value for increasing an understanding of human behavior, including the future physician's own, but such courses cannot be considered as a substitute for gaining familiarity with human activity through the study of history, literature, art, and religion. At least fifty percent of the undergraduate curriculum should be devoted to such areas.

These comments lead directly to a consideration of the choice of a college major. It should be the area that the student at this stage of life finds most interesting — the area about which he is most curious and that gives him the most satisfaction. Provided he is able to demonstrate competence in the natural sciences, the

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field of his college major will not influence consideration of him by the Admission Committee.

Honors courses, advanced courses, and independent work are encouraged for the added educational depth they provide, but such courses should not be taken with the primary motive of increasing one's chances of admission to medical school.

An increasing number of students are being admitted to advanced standing in colleges on the basis of superior ability and educational attainments at secondary school. The program of advanced placement is looked upon with favor when the enrichment of the student's college experience is the goal, but it is not so regarded when the aim is merely to speed the student through college. Leaving college at the end of the third year without the benefit of the fourth or culminating year is not to be recommended unless a student's education has been delayed, and he is older than his classmates.

In the instances of applicants who have received college credit on the basis of work done in high school or preparatory school for any of the required courses listed above, such credit will be accepted by the Medical School as fulfilling the requirements for the particular course or courses involved, provided the Medical School receives from the Dean's Office of the college concerned a written statement setting forth precisely what credit has been given.

No attempt should be made to anticipate the work actually given in medical school — to do so is a double mistake: it eliminates the chance to explore a field that will not be touched upon later, and it may give the student a false sense of security in a subject with which he has some familiarity, leading him to neglect it in medical school under the competitive pressure of other courses. The results can be disastrous.

The selection of students is based on a total appraisal of the personal and intellectual suitability of the candidate for medicine. The student planning to embark upon a career in medicine would be well advised, therefore, to strive — not for grades — not for a vocational training — but for a sound liberal education. He should

give heed to "the development of . . . intellectual, moral, and aesthetic powers."

The Medical College Admission Test of the Association of American Medical Colleges is required of all applicants for admission, and is given in May and October of each year. Applicants are urged, whenever possible, to take this test in May of the year preceding the expected date of matriculation.

This test will be administered by the Psychological Corporation. Information regarding the test may be obtained by writing to Medical College Admission Test, The Psychological Corpora-

tion, 304 E. 45th Street, New York 17, New York.

Interview: When the Committee on Admission deems an interview to be helpful, the applicant will be so informed.

One class only is admitted each year, beginning late in September. Application blanks are ready for distribution after May 1 of the year preceding expected matriculation. These should be returned to the Admission Office, Harvard Medical School, 25 Shattuck Street, Boston 15, Massachusetts, as promptly as possible, but they will not be acted on prior to the following October 1. No applications will be accepted after the next December 1. Places in the class are usually filled by January 15. The Committee on Admission meet at regular intervals from October through February, considering applications as they are completed, but letters of acceptance are mailed only on November 15, December 15 and January 10. Applications will not be considered from candidates who have been refused admission on two prior occasions.

Since a complete catalogue is available in most college libraries, it is not usually sent to individuals.

Admission to Advanced Standing in the Harvard Medical School

Due to the increased number of places available during the third and fourth clinical years, up to 35 students may be accepted

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in transfer from other medical schools. Graduates of two year medical schools and students in four year medical schools who have compelling reasons for transfer are considered. Vacancies which occur occasionally in the second year class may also be filled by transferring students.

Only students of high scholastic standing will be considered. They must be recommended by the Dean of the school from which they come and must furnish a certificate of successful completion of medical studies at least equal to that achieved by the class to which they seek admission. As a rule, full credit for work done elsewhere will be allowed. All the requirements for the first year class (including the Medical College Admission Test). must have been fulfilled by applicants for advanced standing.

Applications may be obtained at the Admission Office after September 1, but will not be acted upon before February 1 of

the year of expected transfer.

Admission to Advanced Standing in the Harvard School of Dental Medicine

The third year class may be increased by a small number of transfer students who have completed the equivalent of the first two years at the Harvard School of Dental Medicine. Vacancies in the second year class may also be filled by transferring students. No students may transfer to the fourth year class with-

out a special vote of the faculty in each instance.

Only students of high scholastic standing will be considered. They must be recommended as promising candidates by the Dean of the school from which they come. Full credit for work done elsewhere will be allowed as a rule, but in certain cases additional work may be required. Ordinarily such requirements can be completed during the summer holiday preceding transfer. All the requirements for the first year class must have been fulfilled by applicants for advanced standing.

Information for Servicemen

The Harvard Medical School welcomes inquiries regarding future application from men who are now on active duty with the armed forces. The Committee on Admission cannot act on applications from men still on active duty and not released from service. The applications of men on terminal leave or whose date of discharge is definitely known may be considered by the Committee. The qualifications for admission remain essentially the same for veterans as for civilian applicants. Before the acceptance of a veteran can be final, the applicant will need to submit photostatic copies of discharge papers or similar evidence of honorable release. Where available the applicant should file also a copy of his "Report of Separation" on which is listed in detail his service record and training. If the Committee does not act favorably on an application, certifications furnished by the applicant may be returned, at his request. It is the responsibility of the applicant to take the necessary steps toward obtaining the governmental benefits for which servicemen are eligible. On request, the section on Veterans Affairs of the Comptroller's Office at Harvard will furnish a statement of the necessary procedures to receive such benefits required by the Veterans Administration. The University has established this office to form a central point for answering inquiries and advising veterans. For matters relating to veterans' affairs and not connected directly with the Medical School, the applicant should feel free to write to the Comptroller's Office, Veterans Affairs, Lehman Hall, Harvard University, Cambridge 38, Massachusetts.

APPLICATIONS FROM FOREIGN STUDENTS

A candidate from a foreign university may file application for admission, but if he has attended a university or medical school which has not received approval by the Approving Authority of the Commonwealth of Massachusetts, he must receive specific approval from the Authority before he can be admitted. In

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general, it is the policy of the Committee on Admission to require that foreign students spend at least one year, and preferably two, studying at an undergraduate college in this country before applying for admission to the Harvard Medical School. This policy has been established in order both that the applicant may become familiar with the language, customs, and methods of teaching in the United States, and that the Committee may obtain a better evaluation of his qualifications and preparation for medicine. Exception to this policy may be made in the case of qualified applicants from schools in the British Isles.

Students seeking transfer to the second year class from foreign medical schools may be required to take the examinations in the first year subjects at the regular time they are given at the Harvard Medical School in January and June. Students applying for transfer to the third year at the Harvard Medical School will be required to take Part I of the examinations given by the National Board of Medical Examiners and to achieve scores satisfactory to the Committee on Admission.

FOREIGN STUDENTS

All students who are not citizens of the United States will be referred before registration to the Harvard International Office, Holyoke Center, 75 Mt. Auburn St., Cambridge 38, where they must present a statement of admission, show their passports, and fill out a Student Registration form. They will then receive a card for presentation at registration, showing they have been cleared by the International Office.

This office serves as the official liaison agency between the University and the United States Department of State and Immigration and Naturalization Service. It maintains a registry of all non-U.S. citizens in the various Schools or Departments of the University, and it furnishes these members of the University community with information, not only on Immigration regulations, but on the facilities available to them through other Harvard offices, and from recognized outside organizations interested in

the welfare, housing and hospitality of those unfamiliar with this country.

SPECIAL STUDENTS

Individuals wishing to take courses or to engage in special study under the Faculty of Medicine, who are not candidates for the degree of Doctor of Medicine or regularly enrolled as students under another Faculty of the University, may apply for admission as Special Students. Candidates should be mature individuals with serious and compelling reasons for wishing to pursue special programs of study at the Harvard Medical School. Application for admission to the status of Special Student should be submitted to the Committee on Admission of the Faculty of Medicine. Each of these students will be under the charge of the Dean and a member of the Faculty designated by the Dean to serve as his special adviser. Admission to Special Student status is ordinarily for a maximum of one year. Only with the approval of the student's adviser, the departments concerned, and the Dean may this period be extended.

Tuition Fee: Varies according to the courses taken and is based on a proportion of the annual fee for instruction.

Special Auditors: Either Special Students, holders of a doctoral degree, or men who do not have the doctor's degree but have some equivalent scholarly or professional standing, may with the approval of the department head, apply to the Committee on Admission to attend courses as Special Auditors. They may not receive credit or take examinations in courses. Fee: \$25 per course.

Special Students at the Medical School wishing to take courses under the Faculty of Arts and Sciences must register with the Dean of Special Students, Holyoke Center, 75 Mt. Auburn St., Cambridge 38, Massachusetts.

COURSES FOR GRADUATES

COURSES FOR GRADUATES

The object of this department of the Medical School is to offer to graduates in Medicine opportunities to continue their studies in a thorough and scientific manner.

For information concerning courses offered, the Catalogue of Courses for Graduates should be consulted.

Facilities at the Harvard Medical School and the abundant clinical opportunities in the various hospitals are available for graduate instruction. Eugene C. Eppinger, M.D., Assistant Dean, is in charge.

DIVISION OF MEDICAL SCIENCES

The major aim of the Division of Medical Sciences is to prepare graduate students for careers of research and teaching in the basic medical sciences. Since the graduate student may elect a program of study suited to his individual requirements, he may concentrate on his field of special interest early in his training, without the obligation of spending two or three additional years in clinical studies which are required for the degree of Doctor of Medicine.

Candidates for admission should have a thorough grounding in the biological and physical sciences. This will usually be more than the minimum for admission to medical school. Advanced courses in biology, chemistry, and physics are ordinarily regarded as preferable to undergraduate courses in bacteriology, biochemistry, histology, etc. A reading knowledge of German and one other modern language is desirable but not required for admission. The candidate will be required, however, to pass an examination in German and one other foreign language before graduation.

The graduate student in the Division devotes a major portion of his time to original experimental investigation which he undertakes in conjunction with formal courses designed as a preparation for his special field. During the period when he is taking

formal courses, he may choose the type of problem which interests him most among the wide range of research activities of members of the Division.

Depending upon undergraduate training, the entering student may design his studies in one of two ways. First the student may immediately select a major and two collateral fields and embark on the courses necessary to fulfill the requirement in these fields. The collateral studies may include courses in the Departments of Biology, Chemistry, and Physics at Harvard College or in special instances at the Massachusetts Institute of Technology. Alternatively the student may enroll in Medical Sciences 201, a course especially designed to introduce the student to the literature, experimental methods, and fundamental principles associated with each of the medical sciences—anatomy, bacteriology, biochemistry, pathology, pharmacology, and physiology. The student may then enter any one of these special fields to carry out his or her Ph.D. thesis work. This choice of a field may be deferred until the completion of this full-year course.

The minimum requirement for the degree of Doctor of Philosophy consists of not less than two years — at least one and a half of which must be in residence at Harvard or Radcliffe — devoted to advanced studies approved as suitable preparation for the degree by the proper department. Ordinarily three or more years are required for the completion of formal courses and preparation of a thesis. In estimating the amount of a candidate's study for the degree, the advanced work done in other graduate departments at Harvard or of other universities will be considered.

Ît is expected that the preparation of a thesis will require full time for usually not less than one and a half years. It must show original treatment of a fitting subject, give evidence of independent research, and be clearly, logically, and carefully written in good English. Following acceptance of his thesis, the candidate is given an oral Final Examination on the subject of his thesis and its relation to his special field and collateral subjects.

The minimum requirement for the degree of Master of Arts consists of a full year of residence and study. At least one quar-

SCHOOL OF PUBLIC HEALTH

ter of the work must be more advanced than the regular introductory courses offered by the various departments, and should consist of research or individual preparation for research. In addition, each student must pass an examination in French or German. In some departments a thesis is required for the degree.

SCHOOL OF PUBLIC HEALTH

The School of Public Health is one of the graduate schools of the University. Instruction and research opportunities are available in the several disciplines which underlie the protection of health and the investigation and control of diseases in communities. Some of these disciplines cut across fields in the medical, physical, and social sciences, and include such entities as biostatistics, epidemiology, public health practice, environmental hygiene, and sanitary engineering. Other significant aspects of public health are represented by departments of microbiology, nutrition, tropical health, and maternal and child health.

Much of the teaching and research activity of the School is concerned with international health problems and the preparation

of people for work in this field.

Students enrolled in the Medical School may take courses at the School of Public Health with the approval of the Head of the Department concerned. Further information and a catalogue may be obtained from the Registrar at 55 Shattuck Street.

GENERAL REGULATIONS

In order that the time of study shall count as a full year, students of all upper classes must register on the first day of the session. A fee of \$10 is charged for late registration.

For special and approved purposes fourth year students may be allowed to take a portion of their work elsewhere than at the Harvard Medical School, provided the application be approved

by the Dean in consultation with the Administrative Board and the head of the department concerned, and provided the student passes an examination on this work after its completion, conducted by a member of the Faculty of the Harvard Medical School.

Examinations and Promotion

Promotion from one class to another is contingent upon the satisfactory completion of the required work of each year. In each course, when indicated, students will be informed by their instructors as early as possible when the progress of their work is unsatisfactory.

Final grades in each course will be based upon such examinations or other tests as are determined by each department. Grad-

ing is on the scale of A, B, C, D, and E (denoting failure).

Grades are averaged on the basis that A = 1, B = 2, C = 3, D = 5 and E = 8. In calculating this average, time devoted to a course is taken into account.

Promotion Boards

Promotion Boards have been appointed for the first, second and third years to review the work of each student at the end of the year or, at their option, at other times. The membership of these boards consists of one representative from each department whose grading, as noted above, affects the student's grade average and one member from the Committee on Examinations and not as voting members, the Dean or Assistant Dean, ex-officiis, and on the Promotion Boards of the first and second years, the Dean of the School of Dental Medicine, ex-officio.

It is the duty of the Promotion Boards to promote those qualified, to notify formally students whose work in any course is unsatisfactory—in certain cases requiring that such students repeat the year's work—and to recommend that unpromising students withdraw from the School.

Opportunity will be given to students to appeal the decision

GENERAL REGULATIONS

of a Promotion Board either at a special meeting or at the next regular meeting of the Board. Appeals must be sent to the Chairman of the Promotion Board, Harvard Medical School and, to be valid, be received by him within two weeks after the issuance of a Promotion Board's notice of formal action.

General Examination

A committee will give a General Examination to each candidate for the degree of M.D. It will recommend to the Faculty those who pass and are otherwise qualified for the degree and for honors. The conditions under which a student shall take a General Examination and the character and content of the examination will be determined by the Committee subject only to rules of the Faculty.

A student becomes eligible to take a General Examination on successfully completing seven-eighths of his fourth year work. He may not anticipate the General Examination ahead of his class.

A student who fails three General Examinations is debarred from further attempts.

Rules Governing Promotion

- 1. A student with a grade averaging, for one year, from D (5) to E (8) will ordinarily be required to withdraw from the School.
- 2. A student whose grade for one year averages from 4 to 5 will be warned that his work is unsatisfactory. At the Promotion Board's discretion such a student may be required to repeat the year's work, or to withdraw from the School.
- 3. A student who is set back a year must repeat at least two assigned subjects and then he will not be promoted unless he obtains a grade of C or better in both of these subjects.
- 4. A student who is warned by a Promotion Board that his work is unsatisfactory and yet is permitted to advance with his class must attain for the ensuing year a grade average which is significantly better than in his previous year, failing which he must repeat the year's work, or, at the Board's discretion, he may be required to withdraw from the School.
 - 5. A student failing in any course and yet permitted to ad-

vance with his class may not be promoted a second time nor will he be allowed to take the General Examination until that failure is removed.

6. A student failing any course will have an opportunity for re-examination only at a time set by the Promotion Board or with a succeeding class or section.

LEAVES OF ABSENCE

The Faculty of Medicine believe that certain students may profitably be granted a leave-of-absence from the School for specified periods of time in order to pursue at other institutions studies and research activities related to medicine. A leave-of-absence for this purpose should be requested from the Dean's Office. It will be granted at the discretion of the Dean.

WITHDRAWAL FROM THE SCHOOL

A student may withdraw from the School voluntarily upon application to the Dean's Office.

A student may be required to withdraw from the School at any time if in the opinion of his instructors he is not competent to pursue his assigned course of study or if the Faculty of Medicine determine that he is for any reason unfit to continue as a student in the School. In addition, any student who is absent without leave from scheduled courses for more than a total of 30 days during the academic year will be required to withdraw from the School.

Application for reinstatement by any student who has withdrawn voluntarily or who has been required to withdraw from the School, must be received in writing by the Committee on Admission of Students at least four months prior to the requested date of readmission. Reinstatement will be made only upon the recommendation of the Committee on Admission.

DEGREES

DEGREES

DOCTOR OF MEDICINE

Every candidate for the degree of Doctor of Medicine at this University must be at least twenty-one years of age, and of good moral character. He must have fulfilled all the requirements for admission to this Medical School; give evidence of having studied in a recognized medical school at least four full years, of which one year must be spent in the regular fourth year course of this School; have passed all the required examinations; have dissected the three parts of the body to the satisfaction of the demonstrator; and furnish evidence of having engaged in the practical exercises in Medicine, Surgery and Obstetrics.

The degree of Doctor of Medicine cum laude, magna cum laude, or summa cum laude may be given to students of highest rating in the class, on recommendation of the Committee on Examinations and the Faculty.

The degree of Doctor of Medicine cum laude, magna cum laude, or summa cum laude for a thesis in a special field may be awarded to candidates for the degree of Doctor of Medicine on recommendation of the Committee on Examinations and the Faculty. The work for this may have been carried out under the Tutorial System or by independent arrangement with any member of the Staff.

The degree is awarded for original and meritorious investigation in a single subject or group of subjects and for evidence of ability, scholarship and persistent interest and industry. Candidates wishing to be considered for such honors in a special field must apply to the Dean's Office not later than March 1 of the year of graduation and must submit two typewritten copies of an original thesis prepared in form usual for publication. The written approval of the head of the department in which the work was completed must be attached.

The thesis should include an introduction with references to

relevant literature; a brief statement of the purpose of the study; a description of the materials and methods employed; an account of the original observations included; a discussion of the results; a summary; and a list of the references used.

No candidate is eligible to graduate with honors for a thesis in a special field unless he has done creditable work in his regular curricular studies and has passed the General Examinations. In addition, any candidate whose qualifications are acceptable for honors in a special field must pass an oral examination before the Subcommittee on Honors in a Special Field and invited special examiners in which he will be examined not only on the subject of his thesis but on the general field of which it is a part.

Every candidate for the degree of M.D. must make application for it in writing on blanks furnished at the Dean's Office, on or before April 1.

DOCTOR OF DENTAL MEDICINE

Every candidate for the degree of Doctor of Dental Medicine at Harvard University must be at least twenty-one years of age and of good moral character. He must have fulfilled all the requirements for admission to this school; give evidence of having studied at least two full years in basic health sciences comparable to those offered in the first two years of this school and two years in a recognized dental school, of which one year must be spent in the regular fourth year course of the Harvard School of Dental Medicine. He must have passed all the required examinations and have satisfactorily completed the minimum requirements for work in the various laboratories and clinics.

The degree of Doctor of Dental Medicine cum laude, magna cum laude, or summa cum laude may be given to students of highest general rating in the class, on recommendation of the Committee on Examinations. The degree is also awarded, where appropriate, with honors for a thesis in a special field.

Application for the D.M.D. degree, on a form provided by the Dean's Office, must be filed at that office prior to April 1 in order

DEGREES

for the student's name to be placed on the list of degree candidates at Commencement.

Doctor of Medical Sciences

Candidates for this degree must matriculate as medical students and complete with an honor grade the regular elementary courses offered by this School, together with such other subjects as may be recommended by the Faculty. Ordinarily this preparatory training will be equivalent to the first two years of the course of study leading to the degree of M.D. In addition, all candidates are required to have a reading knowledge of French and German. In estimating the amount of a candidate's study for the degree, study completed in other approved medical schools will be considered.

Following the completion of this preliminary training, the student shall devote himself for not less than two years to the intensive study of one of the fundamental medical sciences and to the preparation of a thesis. The thesis must show an original treatment of a fitting subject and give evidence of independent research.

There shall be two examinations for every candidate for this degree: a general examination, before entering upon the work of the last two years, covering the elementary medical sciences; and a final examination, upon acceptance of the thesis, covering the particular medical science chosen as a special field.

HIGHER DEGREES IN THE MEDICAL SCIENCES

The degrees Doctor of Philosophy and Master of Arts are offered for advanced work in some special field in the medical sciences and are administered by the Faculty of Arts and Sciences, through the Division of Medical Sciences, which consists of faculty members of the preclinical departments of the Medical School. All candidates for these degrees must hold a degree in Arts or in Sciences from an approved college.

Candidates for the Doctor of Philosophy and Master of Arts degrees are registered in the Graduate School of Arts and Sciences for study in the Division of Medical Sciences. Students interested in graduate study in the Division should see the General Announcement of the Graduate School of Arts and Sciences and the pamphlet entitled Higher Degrees in Medical Sciences. These can be obtained from the Admission Office, Graduate School of Arts and Sciences, 75 Mt. Auburn Street, Cambridge 38, Massachusetts.

Inquiries should be addressed to the Chairman of the Division of Medical Sciences, 25 Shattuck Street, Boston 15, Massachusetts.

FEES AND EXPENSES

An estimate of total yearly expenses shows that the average cost of the school year is approximately \$3,200 for each academic year. This estimate includes tuition, medical health fee, board and room, books, laundry and incidentals.

The fees are: — For matriculation, \$5; for medical health fee, \$74.00 for each year; for instruction (including laboratory charges except microscope rental, breakage, damage and loss of apparatus), \$1,500 for each year.

Term bills for the year 1962-63 are issued and payable as follows:

Issued	Payable	Basic Charges
At Regis- tration		{¼ Tuition for the year ½ Medical Health Fee
Nov. 20	Dec. 10	Tuition for the year Board through Oct. 31 Room Rent for the year Coupon Books through Oct. 31 Miscellaneous Charges

FEES AND EXPENSES

Issued	Payable	Basic Charges
Jan. 20	Feb. 10	1/4 Tuition for the year 1/2 Medical Health Fee Board through Dec. 31 1/4 Room Rent for the year Coupon Books through Dec. 31 Miscellaneous Charges
Apr. 20	May 10	Tuition for the year Board through March 31 Room Rent for the year Coupon Books through March 31 Miscellaneous Charges
June 8 *	June 15	Board to the end of year 1/4 Room Rent for the year Coupon Books to the end of the year Miscellaneous Charges
June 30	July 15	Board to the end of year 1/4 Room Rent for the year Coupon Books to the end of the year Miscellaneous Charges

^{*} Applies only to candidates for degrees.

A deposit of \$50 is required of every new student who accepts a place in the Medical School; this sum to be applied on his first term bill or to be forfeited if the student does not register.

The term bills are sent to the student at his college address unless the Comptroller is requested in writing to send them elsewhere.

A fee of \$10 is automatically added to all bills which are unpaid by the due date.

Any student whose indebtedness to the University remains unpaid on the date fixed for payment is deprived of the privileges of the University until he is reinstated. Reinstatement is obtained only by consent of the Dean of the Department in which the student is enrolled, after payment of all indebtedness.

As a further condition for reinstatement a student who is delinquent in his financial obligations to the University is required to furnish a bond in the form prescribed by the University in the amount of \$1,000 as security for the payment of his future financial obligations to the University.

Students who are candidates for degrees in the middle of the academic year must pay all dues to the University at least one day before the day upon which the degrees are to be voted.

All indebtedness to the University must be paid by all candi-

dates for degrees at least one day before Commencement.

When a student's connection with the University is severed, all charges against him must be paid at once.

Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw from the School.

MICROSCOPES

The School requires that each student secure a standard student microscope, preferably less than twenty years old, with a minimum of two oculars and three objectives including an oil immersion lens. A mechanical stage is not essential. The minimum requirements are as follows:

- 2 oculars 5X and 10X
- 1 oil immersion objective
- 1 16mm. objective
- 1 4mm. objective
- I complete substage —Abbe condenser and Iris diaphragm In addition, the following are recommended by the Department of Pathology:
- under the auspices of the Student Faculty Committee, arrangements have been made for the quantity purchase, at a substantial discount, of the standard American, certain German and Japanese microscopes. The standard American and German monocular

FEES AND EXPENSES

microscopes currently retail at about \$350, binoculars at about \$550.

Further information about the quantity purchase plan will be

sent to each student.

The Medical School has about fifty binocular microscopes available for rental each year to first year students unable to provide their own. The rental charge is \$50 a year.

DORMITORY

Vanderbilt Hall, the Medical School dormitory, has accommodations for 305 male and 20 female students. The majority of the rooms are designed for one occupant. Many of the rooms communicate directly with the adjacent room, and there are also a number of suites for two or more persons. The price of rooms ranges from \$260 to \$505 per person for the academic year. Application forms for rooms in Vanderbilt Hall will be sent to all new students approximately four months before registration day. The date on which they must be returned in order to be included in the drawing will be announced at that time. Students are permitted to reengage their rooms for the following year by signing lease cards at the Dean's Office. The dormitory has squash courts, a tennis court, and a gymnasium which are open to members of the teaching staff and students of the Medical School. There is a parking lot for a limited number of automobiles behind the dormitory. The School assumes no responsibility for loss or damage to automobiles or other property left in the lot. First year students are urged not to bring cars.

DINING HALL

The dormitory contains a large dining hall which is available for all members of the medical area. First year students living in Vanderbilt Hall will be required to pay full board for the academic year, \$620 for 21 meals a week. Second year students living in Vanderbilt Hall will be required to pay full board in the first term but in the second term compulsory meal contracts

may be amended to provide for absence from lunch during the three clinic days of each week. A proportionate decrease in the full board rate will be made for the period involved. Students desiring the amended contract should apply to the Dining Hall checker. Graduate students and others living in the Hall will also be required to sign on for the 21 meals a week for their first two years of residence.

STUDENT HEALTH SERVICE

The Medical Area Health Service at the Peter Bent Brigham Hospital, 721 Huntington Avenue, Boston, supplies medical care to the students. The office is open daily from 8:30 a.m. to 5:00 p.m. except Saturday afternoons, Sundays, and holidays; office hours for the physicians are 8:30 to 10:00 a.m. and 1:00 to 2:00 p.m. However, one of the staff is available during the day by appointment and for emergencies. For emergency care at night and on holidays, the Emergency Service of the Peter Bent Brigham Hospital is open at all times and one of the staff of the Health Service is available by telephone. A complete medical examination of each new student is required at the beginning of the school year. This is conducted by appointment shortly after school opens.

Medical students requiring hospitalization will ordinarily be hospitalized at the Peter Bent Brigham Hospital. Upon registration, each student receives a booklet which describes the medical services available from the Medical Area Health Service. Hospital insurance is available through the plan for wives and children of married students.

Evidence of having been satisfactorily vaccinated is required for entrance to Harvard University and a form for certification which must be filled out is sent to each student who is accepted for admission. Results of a chest film made within six months prior to registration must be reported.

Any illness necessitating absence from classes should be reported to the Health Service.

FELLOWSHIPS

STUDENT EMPLOYMENT

Only a limited amount of outside work can be done without taxing a student's health and scholarship, and the student is urged, when it is possible, to devote himself to a regular program of study and recreation, giving as little time to outside work as is feasible with his plan for financing his medical education. A limited number of positions offering room and board in return for laboratory or minor clinical services in hospitals are available to second, third, and fourth year students. Few opportunities are open to first year students.

FELLOWSHIPS

The Fellowship Funds of the Harvard Medical School are, except where otherwise noted, administered by a Standing Committee of the Faculty. Applications for support from these funds should be sent to the Dean's Office.

EDWARD HICKLING BRADFORD (1918). Anonymous. To be used for medical research or instruction separately or in connection with any other foundation, in such manner as may be prescribed.

JOHN WHITE BROWNE (1918). Mrs. Francis B. Greene. For a young man of unusual promise to pursue research investigation for one year at the Harvard Medical School or elsewhere.

Bullard (1891). William Story Bullard, in memory of three physicians "distinguished for their honorable personal character and their professional services in this community":

GEORGE CHEYNE SHATTUCK MEMORIAL

JOHN WARE MEMORIAL

CHARLES ELIOT WARE MEMORIAL

Any one or all of these fellowships may be paid to any student or member of the medical profession appointed to make such

original investigations in Medical Science as will be most useful to the profession and to the community. The results of these investigations shall not, however, be published as a research performed under the grant of a Bullard Fellowship, unless the work shall have received the approval of the Committee.

Holders of the fellowships must do throughout the academic year the equivalent of at least ten hours' work a week and make a report thereon.

ARTHUR TRACY CABOT (1913). Dr. and Mrs. Frederick Cheever Shattuck. In memory of Arthur Tracy Cabot, A.B. 1872, M.D. 1876. For students of surgery. Ordinarily the incumbent may not engage in active practice, but is to devote himself to the advancement of surgery in the United States or elsewhere. Nomination to this fellowship is by preference to be made by the Moseley Professor of Surgery.

JAMES JACKSON CABOT (1906). Arthur T. Cabot, Samuel Cabot, and Guy C. Cabot. Income to be used to "aid and encourage practical work in scientific medicine."

Walter Bradford Cannon (1945). Mr. Joseph F. and Mrs. Clara Ford. A fellowship in Physiology.

HENRY A. AND CAMILLUS CHRISTIAN (1956). Henry A. Christian. To be appointed by the Hersey Professor of the Theory and Practice of Physic. The fellowship shall be held preferably by the same individual for a period of five years. The greater part of his time shall be devoted to medical investigation, preferably in the field of clinical medicine.

HAROLD C. ERNST MEMORIAL FUND (1938). Mrs. Ellen L. Ernst. A scholarship or fellowship in the Department of Bacteriology.

Charles Follen Folsom (1908). Founded by more than sixty persons in memory of Charles Follen Folsom, A.B. 1862, M.D. 1870. A Teaching Fellowship in Hygiene or in Mental and Nervous Diseases. For the present assigned to the Department of Neuropathology-Neurology.

FELLOWSHIPS

Louis W. Gilbert (1943). S. Louise Gilbert. Income to be used for the study of chronic diseases.

SAMUEL JORDAN GRAHAM (1961). E. Norma P. Graham. Fellowship in surgery.

CHARLES DUSTIN HUNKING, M.D. (1948). Sarah S. H. Cheney, in memory of her brother, Charles Dustin Hunking, M.D., a member of the Class of 1871 of Harvard University and of the Class of 1876 of Harvard Medical School. To enable a graduate of Harvard Medical School, who is also a native of Haverhill, Mass., to do medical research.

Louis E. Kirstein (1937). Friends of Louis E. Kirstein. For the promotion of scientific medical education.

JOHN R. KISSINGER (1911). Harold C. Ernst. For a fellowship or salary of an individual engaged in the investigation of the causation of infectious diseases, preferably in the direction of tropical medicine. Recommendation to this fellowship is made by the Professor of Bacteriology in the Medical School.

WILLIAM O. Moseley, Jr., Travelling Fellowships (1912). Mrs. William O. Moseley. For students who have attended the School for three or four years or, upon recommendation of the Administrative Board in each such case, men who have been two years as undergraduates in the School and who have subsequently for at least a year done, under members of the staff of this School, advanced work of such character and quality as to lead the Administrative Board to believe that they will be of unusual value in their profession. To enable them to continue the study of medicine in Europe. Either two or three fellowships will be awarded.

Francis Weld Peabody Memorial (1929). To be awarded on the recommendation of the Dean and full professors of Medicine in charge of the clinics of the Boston City Hospital, the Massachusetts General Hospital, and the Peter Bent Brigham Hospital, to properly qualified graduates of medical schools to

enable them to devote further time to intensive clinical and laboratory studies.

JEFFREY RICHARDSON (1933). William Lambert Richardson, A.B. 1864, M.D. 1867. To be awarded each year to some deserving student, upon his graduation from the Harvard Medical School, who desires to continue his studies either here or abroad.

Henry P. Walcott (1910). Dr. Frederick Cheever Shattuck. For a Fellow in Clinical Medicine appointed on nomination by the Jackson Professor of Clinical Medicine. The recipient shall not engage in private practice but must devote his time to teaching and clinical research.

WHITMAN (1933). Mrs. Bernard C. Whitman, in memory of her husband Bernard C. Whitman, A.B. 1846, and of her son Crosby C. Whitman, A.B. 1886. Available for a graduate of Harvard Medical School pursuing the study of medicine or surgery at the École de Médecine de Paris.

WILLIAM HUNTER WORKMAN (1925). William Hunter Workman, M.D. 1873. To enable one or more graduates of the Harvard Medical School to pursue postgraduate studies in medicine in this country or abroad. In exceptional cases, fourth year students will be eligible.

SCHOLARSHIPS

HARVARD MEDICAL SCHOOL NATIONAL SCHOLARSHIPS

In order to make it possible for young men of outstanding ability and promise to come to the Harvard Medical School, two or three Harvard Medical School National Scholarships will be offered to incoming members of the first year class. These scholarships will carry a stipend sufficiently large, if necessary, to meet all the student's essential expenses. Successful applicants who maintain a high honor record at the Medical School will continue to hold these scholarships throughout the Medical School course.

SCHOLARSHIPS

The offer of these scholarships is made possible by gifts from Mr. Edward S. Harkness, Dr. Daniel F. Jones, and Dr. Franklin S. Newell. The donors expressed the hope that through these scholarships superior men who could otherwise not receive a medical education would be enabled to attend the Harvard Medical School. They also expressed the hope that some of these men might wish to return to their own communities to carry on the practice of medicine.

Direct application for these scholarships cannot be made since all accepted first year students are considered as candidates, the awards being made without reference to financial circumstances. The stipend will vary depending on the resources of the recipient.

GENERAL SCHOLARSHIPS

The following scholarships are open to students who have been admitted to the School at the time of application. Approximately \$95,000 is available annually from the general scholarship funds.

The Cheever, Gerry, Greene, and Haven Scholarships are awarded only to students of the first year class. The Hayden and Webster Scholarships may be so awarded. All the other scholarships are available to members of all classes.

Information concerning all forms of financial assistance may be obtained from the Dean's Office.

Aesculapian Club (1938). To be used for loans or scholarships.

VIVIAN B. ALLEN (1954). To provide scholarship aid for men who are unable to pay their own way for medical training.

Anonymous No. 60 (1960). To provide scholarships for students in the Medical School.

EDWARD DANA BARBOUR FUND (1928). For promoting medical education in China, preference to students coming from Shanghai or its environs.

EDWARD M. BARRINGER FUND (1881). Edward M. Barringer. For the maintenance of two scholarships for students in the Harvard Medical School. Awarded to deserving students, preference being given to those of the fourth year class.

EDWARD M. BARRINGER No. 1

EDWARD M. BARRINGER No. 2

GORDON BARTLETT (1919). Mr. and Mrs. Donald Gordon, in memory of their nephew, Gordon Bartlett, a student at Dartmouth College who died of wounds at St. Mihiel while serving in the Seventeenth Field Artillery. Preference is given to graduates of Dartmouth College. This scholarship will ordinarily be divided between two men.

MATTHEW AND MARY E. BARTLETT (1916). Miss Fannie Bartlett, in memory of Matthew and Mary E. Bartlett. For the benefit of a worthy and meritorious student who is in need of financial assistance.

Lucius F. Billings (1900). Lucius F. Billings. May be divided between two or more students.

Dr. Robert Bonney Fund (1944). Robert Bonney, M.D. 1898. For the aid of needy and meritorious students.

Henry Fassett Castle (1941). William E. Castle, A.B. 1893, A.M. 1894, Ph.D. 1895, as a memorial to his son, Henry Fassett Castle, who died in November, 1919, at the age of 19, having completed the previous June the work of the first year in the Medical School.

DAVID WILLIAMS CHEEVER (1889). David Williams Cheever, A.B. 1852, M.D. 1858, LL.D. For a first year student after three months' study in the Medical School.

DAVID WILLIAMS CHEEVER #2 (1947). David Cheever, A.B. 1879, M.D. 1901. To be awarded at the beginning of the year to a first year medical student in hope that after the stated pro-

SCHOLARSHIPS

bationary period he may be awarded the scholarship founded by David Williams Cheever, A.B. 1852, M.D. 1858.

ELEANOR DWIGHT CLARK (1938). For one or more scholarships of the type of the Harvard National Scholarships.

OWEN COPP (1936). Hattie G. Copp. To assist one or more needy and worthy students.

COTTING GIFT (1900). Benjamin E. Cotting, A.B. 1834, M.D. 1837. Awarded on the basis of pecuniary need, intellectual capacity, faithfulness and earnest endeavor.

Myron Denton (1956). Myron P. Denton, in memory of his father.

ORLANDO W. DOE (1893). Orlando Witherspoon Doe, A.B. 1865, M.D. 1869. To be given annually to a deserving student in the Medical department.

GEORGE RUSSELL EAGER (1936). Miss Mabel T. Eager, in memory of her father.

HENRY EHRLICH MEMORIAL (1927). Friends and family of Henry Ehrlich, M.D. 1886. To be used for the assistance of needy and worthy students regardless of creed or color.

Russell Dunson Elliott (1950). Awarded annually to properly qualified applicants, preferably of Anglo-Saxon ancestry.

HORACE PUTNAM FARNHAM (1918). Mrs. Eliza Cary Farnham in memory of her husband, Dr. Horace Putnam Farnham, A.B. 1843. For the benefit of meritorious students in the Harvard Medical School.

REGINALD FITZ (1954). Scholarships for students in the Harvard Medical School.

Dr. E. Peabody Gerry (1943). The income to aid first year students.

Judge and Mrs. Samuel Jordan Graham Memorial (1961). E. Norma P. Graham.

CHARLOTTE GREENE (1925). Edwin Farnham Greene. For a first year student whose previous record indicates special promise.

DR. C. EUGENE GUNTHER (1933). Mrs. C. Eugene Gunther in memory of her husband. To be used to maintain two scholarships for the benefit of deserving medical students.

WILLIAM WAUGH HAGGART (1955). G. Edmund Haggart, M.D. In memory of his brother for scholarships, beneficiary aid or loans.

EDWARD WARREN HARNDEN (1957). William H. Snyder, Jr. and Monica H. Snyder. For scholarships, loans or other financial aid.

Dr. Charles Harrington (1959). In memory of Dr. Charles Harrington. Beneficiary aid for deserving students.

GEORGE HAVEN (1913). George Haven, M.D. 1883. To be used annually for scholarships for students of the first year in the Medical School.

Lewis and Harriet Hayden (1894). Mrs. Harriet Hayden. For colored students. The income may be divided. If not awarded in the Medical School, the School of Public Health, or the School of Dental Medicine, it is open to colored students in any other department of the University.

ERNEST LAURENCE HILL (1961). ANNETTE S. HILL. In memory of son — to assist medical students from Maine and New Hampshire.

WILLIAM HILTON (1897). Two scholarships annually in the Medical School.

WILLIAM OTIS JOHNSON (1911). Mrs. William O. Johnson, in memory of her husband, William Otis Johnson, A.B. 1845, M.D. 1848.

CLAUDIUS M. JONES (1893). Claudius Marcellus Jones, A.B. 1866, M.D. 1875.

THOMAS HINCKLEY LANMAN (1961). Established by the Harvard Medical Alumni Council.

ALFRED HOSMER LINDER (1895). Mrs. George Linder. For a student of sound principles and marked ability.

ARTHUR THEODORE LYMAN AND HENRY STURGIS GREW ME-MORIAL SCHOLARSHIP (1926). On March 19, 1951, it was voted by the Corporation . . . "to provide that such income shall be available, until further order of this board, for scholarships in the Medical School, the School of Dental Medicine and the School of Public Health; preference to be given to Chinese students, with the understanding that if none such apply successfully, the income may be used for scholarships for students from elsewhere in the Far East."

MEDICAL SCHOOL CLASS OF 1879 (1909). Established by the Class of 1879 as a loan fund and later converted to a scholarship.

James Ewing Mears, M.D. (1909). J. Ewing Mears. For a student throughout the full course of four years, subject to his scholastic standing and good conduct.

ERNEST OMAR NAY (1947). Ernest Omar Nay, M.D. 1919. For a medical student from the states of Indiana, Illinois or Ohio whose scholarship is above the average and whose financial resources are such that he cannot unaided acquire a medical education.

Joseph Pearson Oliver (1904). Patients of Joseph Pearson Oliver, M.D. 1871. To be awarded to a needy and deserving student of the Medical School.

JOHN ELIOT OVERLANDER (1947). John Eliot Overlander, M.D. 1909. To assist such needy medical students as may be deemed worthy of assistance by the proper authorities.

ALWIN M. PAPPENHEIMER '99 (1957). Beatrice L. Pappenheimer. For the benefit of such graduate students in the fields of medicine or music.

CHARLES B. PORTER (1897). William L. Chase.

Dr. Flavius Searle (1921). Miss Mary L. Searle, in memory of her father, Dr. Flavius Searle. The stipend may be divided.

JOSEPH J. SILBERT (1937). For scholarship or loans to needy students.

ELEANOR B. AND CHANNING S. SIMMONS (1954). Scholarships for two needy students.

Francis Skinner (1905). Francis Skinner, Esq. To be used in small sums to meet the urgent needs of meritorious students in the payment of term-bills or other expenses.

Charles Pratt Strong (1894). Friends and patients of the late Charles Pratt Strong, A.B. 1876, M.D. 1881.

ISAAC SWEETSER (1892). Mrs. Anne M. Sweetser. To be "devoted to the aid of poor students of ability who would not otherwise be able to continue the studies necessary for their profession."

John Thomson Taylor (1899). Mrs. Frederic D. Philips, in memory of her brother, John Thomson Taylor. To be paid to some meritorious undergraduate of the Medical School without regard to his pecuniary circumstances.

MARY THACHER (1956). Mary Thacher. To be applied against the tuition of needy students preferably from first, Yarmouth, Massachusetts, secondly from the Cape Cod region of Massachusetts, and thirdly from Massachusetts.

James Rockwell Torbert (1958). Elizabeth T. Torbert. In memory of her husband James Rockwell Torbert, H.M.S. 1902.

WALKER SCHOLARSHIPS (1922). Miss Leslie Walton Walker, four scholarships.

Dr. CHARLES WALKER

HELEN L. WALKER

ANNA G. WALKER

LESLIE W. WALKER

RICHARD H. WALLACE (1960). The family and friends of Richard H. Wallace, H.M.S. 1927.

ABRAHAM A. WATSON (1923). Miss Catherine E. Walker. For the benefit of students in the Medical School.

MAJOR HARRISON BRIGGS WEBSTER, U.S.A. MEMORIAL (1921). Gift of L. Florence Webster in memory of her son, Class of 1905, to sons of members of that class or to a needy student in the Medical School.

EDWARD WIGGLESWORTH (1897). The family of Edward Wigglesworth, A.B. 1861, M.D. 1865.

JAMES F. AND HELENA C. M. WILLIS (1961). Helena C. M. Willis. For a student who is a native of Boston.

PAUL RICHMOND WITHINGTON, JR. (1960). The family and friends of Paul Richmond Withington, Jr.

S. Burt Wolbach (1955). Dr. and Mrs. Robert E. Gross.

SCHOOL OF DENTAL MEDICINE SCHOLARSHIPS

As part of the Harvard National Scholarship plan, prize scholarships are awarded to one or more members of each class entering the Harvard School of Dental Medicine. The selection of recipients is based on academic promise without reference to financial need. The amount of the stipend, however, is in proportion to the student's actual necessities, except that a certain minimum award is granted to all prize scholars. In the event that a prize scholar has need of it, the amount of the award will be sufficient to cover his tuition in the School of Dental Medicine. Each student accepted by the Committee on Admission is considered as a candidate for a National Scholarship. *An individual application cannot be made*. The prize scholarship is awarded for one year. If the student maintains a satisfactory record, the scholarship will be renewed annually.

In addition to the National Scholarship, a limited number of scholarships are available to students enrolled in the School of Dental Medicine. These scholarships are awarded on the basis of academic excellence, financial need or a combination of these factors.

THE ALFORD FUND (1785). Mrs. Joanna Alford. To be used for scholarships for those students who are under low and indigent circumstances.

DWIGHT M. CLAPP (1926). Clara Josephine Clapp in memory of her husband, Dwight M. Clapp, D.M.D. 1882. For the education of a male student born in Massachusetts, preferably one who has a college education or training of a classical character.

DENTAL SCHOOL ALUMNI SCHOLARSHIP (1937). A gift of the Class of 1912.

THOMAS ALEXANDER FORSYTH (1929). Thomas Alexander Forsyth scholarship to two deserving men, awarded continuously until they have completed the course.

HARVARD DENTAL ALUMNI (1949). Selection of a candidate shall be based upon character, scholarship, and promise within the field of dentistry. The award may be offered as a scholarship to an undergraduate student of the third or fourth year or as a fellowship for graduate work.

EUGENE HANES SMITH (1920). Alumni Association. To be awarded to a third or fourth year student who has been a student in regular standing during the first and second years.

PETER E. STRAUSS (1922). Emily R. M. Strauss. In memory of her husband.

FELLOWSHIPS AND SCHOLARSHIPS AVAILABLE IN OTHER DEPARTMENTS OF THE UNIVERSITY AS WELL AS IN THE MEDICAL SCHOOL AND SCHOOL OF DENTAL MEDICINE

The fellowships, scholarships and loans listed below which are marked with an asterisk (*) give preference to, or are restricted

to, students who come within the special terms set forth. Unless otherwise stated, applications should be made, before *February 20*, to the Deans of the Medical School and School of Dental Medicine.

*John Austin Amory, Class of 1907, Scholarship Fund (1954). Gift of Roger Amory, Class of 1910, to establish "the John Austin Amory, Class of 1907, Scholarship Fund to provide one or more scholarships for candidates for a degree in any college or graduate school of the University." Under certain conditions a grandson by male line of John Austin Amory, '07, may be entitled to the income. If no awards are made to preferential candidates, the income shall be assigned to the College Admission and Scholarship Committee.

Anonymous No. 55 (1952). Anonymous gift "to provide one or more scholarships or beneficiary grants to graduates or undergraduates in Harvard University. These awards shall be based on need and character and not scholarship alone."

HATTIE G. ATKINS BEQUEST (1961). Residuary bequest of Hattie G. Atkins in memory of her ancestor, Matthew Gannett, the income to be used for not more than two graduate or undergraduate scholarships.

EDWARD AUSTIN BEQUEST (1899). For fellowships or scholarships in any department of the University.

JASON S. BAILEY FUND (1952). Residuary bequest of Jason S. Bailey. For scholarships in any department of the University.

FRANK B. BAIRD, JR. FUND (1955). Gift of the Frank B. Baird, Jr. Foundation, to establish the Frank B. Baird, Jr. Scholarship. Income assigned to the Graduate School of Education.

ELLEN S. BATES FUND (1929). Residuary bequest of Ellen S. Bates. For scholarships to deserving students in any department of the University. To be awarded every third year, with the next tward to be made in 1964.

*Baxendale Scholarship (1928). Bequest of Esther M. Baxendale. Preference: (1) descendants of Alan Bedford Hudson; (2) students of the name of Baxendale or Hudson; (3) students from Brockton, Mass., or Bourne, Mass. Birth certificate and genealogical record required of (1).

*Bright Legacy (1880). Bequest of Jonathan Brown Bright. For descendants of Henry Bright, Jr., of Watertown, Mass., who bear the name of Bright, registered in any department of the University. If no awards are made to preferential candidates, the income shall be assigned to the College Admission and Scholarship Committee. Birth certificate and genealogical record required to establish special claim.

*Daniel A. Buckley Bequest (1905). Bequest of Daniel A. Buckley of Cambridge, Mass. For needy and worthy graduates of Latin, High and other public non-sectarian schools in Cambridge enrolled in any department of the University. Awards to undergraduates will be made by the College Admission and Scholarship Committee.

*Godfrey L. Cabot, Inc. Scholarship Fund (1955). For scholarships and grants of "aid" to students enrolled in any department of the University. A son of an employee of Godfrey L. Cabot, Inc. or of its subsidiary and associated companies, who applies for aid or a scholarship, may be preferred in the awards from this fund.

*Madame Marguerite Carriere Fellowship Fund (1959). Residuary bequest of Louis A. Freedman in memory of his wife. The fellowship is to be awarded in alternate years to a graduate student at Harvard University for study in France and to a French graduate student for study at Harvard University. It is hoped that the aim of the American student in France will be to study the French traditions and attitude so as to better understand and explain the French reaction to the problems that concern both countries and that similar aim will guide the French student in America.

- *Victor Emmanuel Chapman Memorial Fellowship (1917). Several donors. In memory of Victor Emmanuel Chapman, A.B. 1913, killed in World War I. For a French youth (or youths) for study in any department of the University. Apply through the Institute of International Education, 1 East 67th Street, New York 21, New York, before February 1. Students already enrolled at Harvard should apply through their Schools.
- *Joseph Hodges Choate Memorial Fellowship (1919). Gift of the Harvard Club of New York City in memory of Ambassador Joseph Hodges Choate, A.B. 1852. Awarded upon the nomination of the Vice-Chancellor of the University of Cambridge, England, to a British subject coming from that University to study in any department of Harvard University.
- *George Chase Christian Memorial Scholarships (1936). Gift of Carolyn McKnight Christian in memory of her husband, George Chase Christian, A.B. 1895. To be awarded as National Scholarships to residents of Minnesota, for study in any department of the University, preferably the graduate schools.
- *Mark D. Cory Scholarship (1954). Residuary bequest of Mark D. Cory. To be awarded to a worthy graduate of the Gadsden High School, Gadsden, Alabama to be selected and designated by the faculty of said high school. Available for students in any department of the University. Administered by the College Admission and Scholarship Committee.
- *Myer Dana and Etta Dana Scholarship Fund (1953). Gift of Etta (Mrs. Myer) Dana. To provide scholarships or beneficiary aid to needy and deserving students in the College, Law School, or Medical School. Awards are made upon the recommendation of the Deans of these Schools and *not* upon application.
- *Charles Downer Scholarship Fund (1927). Bequest of Charles Downer, A.B. 1889, LL.B. 1892. For students in any department of the University in the following order of preference:
- A. Students of "English or Anglo-Saxon stock" who bear the

family surname of Downer by right of birth or inheritance, and not because of adoption, preference to be given to such students who are descendants of Joseph and Robert Downer, of Wiltshire, England, who came to America about 1650. Scholarship awards under this category will be sufficient to pay for tuition, books, food, room and other incidentals in any academic year.

- B. Descendants of members of the Harvard College Class of 1889 who are in need of assistance.
- C. Residents of the State of Vermont, preference to be given to those most worthy of assistance.
- D. Students worthy of assistance and of high scholarship, preference to be given to (1) Descendants of graduates of Harvard College, and (2) Those "of that old Anglo-Saxon stock which has gone forth from New England into all parts of the United States and has been the means of giving strength and stability and character to our government."

Or, any balance of income remaining after the award of scholarships as specified in paragraphs A, B and C above may be used for fellowships for Harvard graduates of high scholarship and of rare and unusual ability who are pursuing special work either at Harvard or at any American or foreign university or school.

*DWIGHT D. EISENHOWER SCHOLARSHIP FUND (1962). Gift of William A. Hinton in memory of Augustus and Maria Hinton, "the income to be used to assist graduate students in any department by way of scholarship grants, prizes for scholarly treatises or other achievements, or otherwise."

JOSEPH EVELETH BEQUEST (1896). For needy and worthy students in any department of the University.

*Thomas Hooker Flint Memorial Scholarship (1957). Established by the friends and family of Thomas Hooker Flint, Harvard College Class of 1958, who died in 1957 in a climbing accident on Mount Madison, in the White Mountains, New

Hampshire. The scholarship may be awarded either to students in Harvard College or Harvard Medical School, with preference for graduates of the Belmont Hill School. Thomas Flint was born in Concord, Mass., April 22, 1936, attended Belmont Hill School, and entered Harvard College in the Class of 1958 as an Honorary National Scholar, and hoped to attend Harvard Medical School. The scholarship is established in the conviction that those who benefit from it will fulfill the promise of his short life, as expressed in the closing words of a prayer known to have been Thomas Flint's guide in life: "Help us to make the life of our youth as lovely as the world in which it lives; the brotherliness of humanity equal to the beauty of nature."

GAGE SCHOLARSHIP (1948). Bequest of Homer Gage, A.B. 1882, M.D. 1887. In memory of Thomas H. Gage, M.D. 1852, Homer Gage, 1882, Thomas H. Gage, Jr., 1886, and Homer Gage, Jr., 1918. For students registered in any department of the University.

*Jean Gaillard Memorial Fellowship (1946). Established in memory of Jean Gaillard, a student of the Ecole Centrale des Arts et Manufactures in Paris, who served as an Aspirant in the French Air Forces, was arrested by the German Gestapo, and died in the German concentration camp at Ravensbrueck April 16, 1945, a victim of Nazi inhumanity. For French youths for study in any department of Harvard University or of the Massachusetts Institute of Technology. The incumbents from year to year are to be nominated by the Board of Directors of the Ecole Centrale des Arts et Manufactures in Paris.

John Tyler Hassam Memorial Scholarship (1941). Bequest of Eleanor Hassam in memory of her father, John Tyler Hassam, A.B. 1863. For students registered in any department of the University.

*Lewis and Harriet Hayden Scholarship for Colored Stu-DENTS (1894). Residuary bequest of Mrs. Harriet Hayden. For needy and worthy colored students in the Medical School, School

of Public Health and Dental School; or, if not awarded in these Schools, in any department of the University. Administered by the Medical School.

NATHAN HAYWARD MEMORIAL SCHOLARSHIP FUND (1956). Gift of Anna S. (Mrs. Nathan) Hayward in memory of her husband. For Nathan Hayward Scholarships or aid to students in any department of the University.

*Charles W. Holtzer Fellowships (1929). Bequest of Charles W. Holtzer. For young men of German birth who have received their preliminary education in German institutions of learning, to study in any department of the University. Preference is given to students in Germany at the time of application. Students in Germany may apply either through the Deutscher Akademischer Austauschdienst, Nassestrasse 11, Bonn, or the Institute of International Education, 1 East 67th Street, New York 21, New York, before February 1. Students enrolled at Harvard should apply through their Schools. Documentary proof of German birth and education required.

EDWARD WILLIAM HOOPER MEMORIAL (1905). The gift of friends of Edward W. Hooper, A.B., 1859, LL.B. 1861. For one or more fellowships in any department of the University.

CHARLES LLOYD HUFF SCHOLARSHIP FUND (1949). Residuary bequest of Anna Elizabeth (Mrs. Charles Lloyd) Huff, in memory of Charles Lloyd Huff, A.B. 1913. Income assigned to the College Admission and Scholarship Committee.

Sinclair Kennedy Fund (1948). Gift of Mrs. Rae B. Kennedy in memory of her husband, Sinclair Kennedy, A.B. 1897, LL.B. 1906. For grants to students enrolled in any of the graduate departments of the University for travel and residence outside the United States. "This fund to provide grants for travel is created in the belief that an opportunity to observe and to compare, to seek meanings and reasons, may enlarge the understanding of the traveller and, through him, be of general value." Not open to

competition by undergraduates, including graduating seniors, in the College. Recommendations for Kennedy Fellowships are made *on behalf* of students by the Deans or Chairmen of the Departments in which the student is registered. In addition, at least two letters of recommendation from the student's instructors, and a somewhat detailed statement of purpose written by the candidate, must be submitted on his behalf. All material is then forwarded to the General Scholarship Committee Office, 906 Holyoke Center, Cambridge, *before February 1*.

*Frank Knox Memorial (1946). Gift of Annie Reed Knox in memory of her husband, Col. Frank Knox, LL.D. (Hon.) 1942, Secretary of the Navy, 1940–44. "It is my hope that this fund . . . will play a part in an integrated program of exchange fellowships throughout the world. The Frank Knox Memorial is established because of the firm belief of my dear husband, a conviction which I share, that cooperation between the British Commonwealth and the United States of America, based upon an informed and understanding contact of the peoples of these two great countries, is an essential to international peace." Candidates shall be selected on the basis of future promise of leadership, strength of character, keen mind, a balanced judgment and a devotion to the democratic ideal. Fellowships are to be awarded annually to:

- . Students coming from the following British Commonwealth countries: the United Kingdom, Australia, New Zealand, Canada and Newfoundland. Students should apply through their university before November 1 of the year preceding award.
- 2. Recent graduates of Harvard College, or students who have completed at least one year of study in one of the Harvard graduate schools, for study in any one of the countries listed above.

Procedure for graduate students. Recommendations for Knox Fellowships are made on behalf of students by the Deans or Chairmen of the Departments in which the student is reg-

istered. In addition, at least two letters of recommendation from the student's instructors, and a somewhat detailed statement of purpose written by the candidate, must be submitted on his behalf. All material is then forwarded to the General Scholarship Committee Office, 906 Holyoke Center, Cambridge, before February 1.

Procedure for College students (graduating seniors only). Recommendations for Knox Fellowships are made on behalf of students by their Department Chairmen and House Masters or Senior Tutors. Application material is due March 1 in the Office of the Dean of the College, 4 University Hall, Cambridge. Nominees are selected by informal interviewing committees.

*Arthur Lehman Fund (1936). Gift of Adele L. (Mrs. Arthur) Lehman and her daughters and sons-in-law, Mr. and Mrs. Richard J. Bernhard, Mr. and Mrs. Benjamin J. Buttenwieser and Mr. and Mrs. John L. Loeb, in memory of Arthur Lehman, A.B. 1894. For Arthur Lehman Fellowships to be awarded along the general lines of the Harvard National Scholarship Plan. For students of exceptional merit and promise in the graduate and professional schools only of the University, preference to be given to the following: Graduate School of Arts and Sciences, Graduate School of Design, Graduate School of Education, Medical School, and Graduate School of Public Administration.

HORACE LOUIS LEITER MEMORIAL SCHOLARSHIP (1955). Bequest of Marietta D. Leiter in memory of her husband, Dr. Horace Louis Leiter, A.B. 1899. For deserving students in any department of the University.

GEORGE VASMER LEVERETT SCHOLARSHIP (1958). Residuary bequest of George Vasmer Leverett of the Class of 1867. To "establish new scholarships or fellowships."

*Lincoln Scholarship (1876). Residuary bequest of Miss Levina Hoar. Preference for needy and worthy students from Lincoln, Mass. If there are no such applicants, the income is assigned to

the College Admission and Scholarship Committee for award to undergraduates.

Charles R. Lowell and Anna L. Lowell Scholarship (1949). Residuary bequest of Anna L. (Mrs. Henry E.) Woodbury for the establishment of two scholarships, to be known as "The Charles R. Lowell and Anna L. Lowell Scholarship" and "The James J. Lowell and Anna L. Woodbury Scholarship" for "worthy, deserving and indigent young men who may be shown to be unable to pay their tuition." Available for award in any department of the University. Income assigned to the College Admission and Scholarship Committee.

James J. Lowell and Anna L. Woodbury Scholarship (1949). Residuary bequest of Anna L. (Mrs. Henry E.) Woodbury, see above. Income assigned to the College Admission and Scholarship Committee.

Frances E. Markoe Residuary Bequest (1944). Residuary bequest of Frances E. (Mrs. Harry) Markoe for the establishment of scholarships for students in any department of the University.

*ALWIN M. PAPPENHEIMER '99 FUND (1957). Bequest of Beatrice L. (Mrs. Alwin M.) Pappenheimer, in memory of her husband; "the income therefrom to be used for any kind of financial assistance, whether for tuition, books, necessary maintenance and support or otherwise, to graduate students in the College or in any graduate school of the University, suggesting, but not binding the President and Fellows of Harvard College hereby, that the said income be preferably used for the benefit of such graduate students in the fields of medicine or music." The income is allocated equally between the Medical School and Graduate School of Arts and Sciences. Awards made by the scholarship committees of those schools.

JOHN PARKER BEQUEST (1873). Bequest of John Parker for fellowships to further the scientific education either abroad or in the United States (including Harvard University) of exceptionally

talented graduate students devoting themselves to the study of one of the natural sciences. Not open to competition by undergraduates, including graduating seniors, in the College. Candidates from the following areas are considered: Divisions of Engineering and Applied Physics (if candidate's field is concerned with a natural science), Geological Sciences and Medical Sciences; Departments of Astronomy, Biology, Chemistry and Physics. Recommendations for Parker Fellowships are made on behalf of students by the Chairmen of the Divisions and Departments listed above. In addition, at least two letters of recommendation from the student's instructors, and a somewhat detailed statement of purpose written by the candidate, must be submitted on his behalf. All material is then forwarded to the General Scholarship Committee Office, 906 Holyoke Center, Cambridge, before February 1.

*Frederick E. Parlin Fund (1928). Bequest of Albert Norton Parlin. For needy and worthy students in any department of the University, preference to be given to natives of Malden or Everett, Mass. Evidence that applicant is a native of either Malden or Everett should accompany application of student seeking to establish preferential claim.

*WILLIAM PENNOYER BEQUEST (1670). Bequest of William Pennoyer of England, for two fellows and two scholars; one preferably to be a descendant of Robert Pennoyer (a brother of William) and the other . . . [from] . . . New Haven [Colony]. Preference to to be given to undergraduate descendants. Pennoyer descendants in the graduate schools may apply for the Pennoyer Scholarship by filing such application directly with the College Admission and Scholarship Committee. Certified genealogical records required to establish claim.

*Aristides Evangelus Phoutrides Memorial (1925). Gift of friends of Aristides Evangelus Phoutrides, A.B. 1911, Ph.D. 1915, to provide a scholarship in his memory for a student of Greek birth or of Greek parentage in any department of the University.

Documentary evidence of Greek birth or parentage required of applicants.

*Princeton Fellowship (1910). Gift of Cleveland H. Dodge. To be awarded to a graduate of Princeton University, for his first year of study only, in one of the graduate departments of Harvard University. Applications should be made to the Dean of the Graduate School of Princeton University before January 20.

*Leon W. Redpath Scholarship (1938). Bequest of Eliza Allen (Mrs. Ellis W.) Redpath in memory of her son Leon W. Redpath, A.B. 1898. For deserving students from the State of Ohio, registered in any department of the University, with preference to residents of Stark and Tuscarawas Counties.

*Franklin Reynolds Fund (1925). Residuary bequest of John F. Reynolds. For students in any department of Harvard University and Radcliffe College who are natives of Marblehead, Mass. Application should be accompanied by evidence that applicant is a native of Marblehead.

*James A. Rumrill Scholarships (1909). Gift of Anna Chapin (Mrs. James A.) Rumrill in memory of her husband James Augustus Rumrill, A.B. 1859, to establish three scholarships, two of which are available to graduates of secondary schools in Virginia, North and South Carolina, Florida, Georgia, Tennessee and Kentucky, for their first year of residence as undergraduates in Harvard College. The third scholarship is for a graduate of a college or university in any of the above-named states for study in his first year of residence in any graduate department of Harvard University. These scholarships are not renewable. In the absence of properly qualified candidates from the above-named states, the scholarships may be thrown into general competition, as two undergraduate scholarships and one graduate scholarship. Entering students in the College apply to the College Admission and Scholarship Committee; entering students in the graduate departments apply through the Deans' Offices of their Schools.

ARTHUR SACHS SCHOLARSHIP AND FINANCIAL AID FUND (1958). Gift of Arthur Sachs, Class of 1901, of Paris. "To make an enduring contribution to the relations between the two countries (the United States and France), by enabling an increasing number of the most deserving and able students in France to study in the United States." The income of this fund will "provide financial assistance for French students enrolled or to be enrolled" in Harvard University. Nominations are made by the Sachs Scholarship Committee in Paris. Inquiries from French students should be addressed to Cultural Attaché, United States Information Service, 4 avenue Gabriel, Paris 8 °, France.

*Peter Brooks Saltonstall '43 Memorial (1947). Gift of the family of Peter Brooks Saltonstall, 1943, who was killed in action on the Island of Guam on August 13, 1944. Peter B. Saltonstall was the son of Leverett Saltonstall, A.B. 1914, LL.B. 1917, United States Senator from Massachusetts and formerly Governor of Massachusetts. To further the education, the health and welfare of the peoples inhabiting the Hawaiian Islands and those islands west of Hawaii, including New Zealand, the Fiji Islands and Australia and also Japan, South Korea, Hong Kong, Formosa, the Philippine Islands, Vietnam, the East Indies, Indonesian Islands, Sumatra and Thailand. The first preference is that the income of this fund be used for scholarships or fellowships to assist worthy students from the above-named Pacific regions to gain a better education at Harvard University. The stipend shall be set to supplement the holder's income sufficiently to defray all his basic expenses of tuition, board and room, and in certain instances some travel allowance may be included. Students may apply directly to Harvard or through the Institute of International Education, 1 East 67th Street, New York 21, New York, before February 1. Students already enrolled at Harvard should apply through their Schools.

In the event that no suitable candidate for the scholarship appears, the unexpended income and its accumulation shall be available for the support of research to better the living conditions or

the general well-being of the peoples in the Pacific region described above, such research grants to be made by vote of the Corporation on the recommendation of the Dean of the Faculty of Arts and Sciences.

Charles N. Shaw Fund (1960). Bequest of Charles Nason Shaw. For the support of needy and deserving students in any department of the University.

Frederick Sheldon Fund (1909). Residuary bequest of Amey Richmond (Mrs. Frederick) Sheldon, in memory of her husband. The income of this Fund is "to be applied . . . to the further education of students of promise and standing in the University by providing them with facilities for further education by travel after graduation or by establishing travelling scholarships."

Every holder of a Sheldon Fellowship, or Sheldon Prize Fellow-

Every holder of a Sheldon Fellowship, or Sheldon Prize Fellowship, must be a member of the University at the time of his appointment and must hold a Harvard degree, or be a candidate

for a degree in June of the year of appointment.

Procedure for graduate students. Recommendations for Sheldon Fellowships are made on behalf of students by the Deans or Chairmen of the Departments in which the student is registered. In addition, at least two letters of recommendation from the student's instructors, and a somewhat detailed statement of purpose written by the candidate, must be submitted on his behalf. All material is then forwarded to the General Scholarship Committee Office, 906 Holyoke Center, Cambridge, before February 1. Holders may enroll at universities in this country—outside Harvard University—or abroad, for purposes of formal study or research, or they may engage in travel, or they may combine travel and study.

*Ernest Frederick Slater Scholarship (1955). Bequest of Ernest F. Slater. The income to be awarded as scholarships in any department of the University to deserving (financially or otherwise) young men who are residents of (a) the City of Orangeburg, South Carolina; (b) the State of South Carolina; preference

to be given to descendants by birth or adoption of Edward Frederick Slater, father of the donor, regardless of their residence. Not open to students in their first year at the University.

*Charles H. Smith Bequest (1947). Residuary bequest of Charles H. Smith. For awards to students in any department of the University according to the following order of preference:

- 1. a. Graduates of public high schools in Providence, Rhode Island, who are of scholarship rank.
 - b. Graduates of public high schools in Providence, Rhode Island, who are below scholarship rank but who are considered eligible for financial aid.
- 2. Graduates of other (non-public) secondary schools in Providence, Rhode Island, who are of scholarship rank.
- 3. Any residents of Rhode Island not indicated above who are of scholarship rank.

*WILLIAM STOUGHTON BEQUEST (1701). Bequest of Lieutenant Governor William Stoughton, A.B. 1650. For awards to students in any department of the University according to the following order of preference: (a) Residents of Dorchester or Mattapan, Mass.; (b) Residents of Milton, Mass.; (c) Any needy and deserving students.

JOHN E. THAYER SCHOLARSHIPS (1857). Bequest of John E. Thayer, the income to be paid "to the ten most meritorious scholars in Harvard University in Cambridge every year . . . the income shall only be paid to such meritorious scholars as who may actually need the same."

- *Augustus Clifford Tower Fellowship Fund (1927). Gift of Louise G. (Mrs. Augustus Clifford) Tower for two fellowships to be awarded annually to:
- 1. A graduate of Harvard College who may be either a graduating senior or a student enrolled in one of the graduate departments of the University, for study in a French university, preference to be given to a student of Anglo-Saxon descent. Graduating

seniors should consult their Department Chairmen, House Masters or Senior Tutors with regard to the application procedure. Graduate students should consult their Deans or Department Chairmen. Nomination, on the basis of application material and interview, is made by a special selection committee to the Committee on General Scholarships.

2. A French student for study in any graduate department of Harvard University. French students should apply through the Directeur, École Normale Supérieure, 45 rue d'Ulm, Paris Ve, France, early in January.

In addition to the above fellowships, a sum from the Tower Fund is set aside annually for a travel grant to either a graduating senior or a student enrolled in one of the graduate departments of the University, who is nominated by a special selection committee to attend the École Normale Supérieure in Paris, on a fellowship provided by the French Government. Candidates should be United States citizens. For application procedure see paragraph 1 above.

University General Scholarship Fund (1951). Established by the President and Fellows of Harvard College. For scholarships to students in any School or department of Harvard University.

*Thomas E. Upham Class of 1868 Fund (1939). Bequest of Marcella B. Upham. May be granted annually to worthy graduates of Harvard College in any department of the University who are "preparing to serve our country in public offices of trust and responsibility in the gift of the people, students of American parentage descended from the early settlers to be chosen in preference to others, provided they are equally worthy of assistance."

*Variell Scholarship (1961). Bequest of Katharine S. Variell in memory of Montfort Schley Variell, the income to be used for music students particularly interested in the piano. Awards are made upon the recommendation of the Chairman of the Music Department and not upon application.

*Anna Vaughn Foundation (1935). Residuary bequest of John Vaughn, A.B. 1879. For "meritorious students of Harvard University who are pursuing studies in any biological science."

SARAH L. VIEHMANN SCHOLARSHIP (1936). Gift of Henry Bluestone, A.B. 1906, in memory of his mother, Sarah L. Viehmann. For deserving students in the College or graduate departments of the University.

THE BENJAMIN WEAVER FUND (1961). Residuary bequest of Wealthy M. Weaver in memory of her son Benjamin Weaver, A.B. 1889, the income to be used for scholarships to students in any department of the University.

*Jens Aubrey Westengard. "The income is to be applied . . . to the further education of students of promise and standing in any department of the University by providing them with facilities for further education in Europe, Britain, or South America, by travel or study, or to the further education of students of promise and standing in any of those countries, by providing them with facilities for further education by travel and study in this country, preferably by study in some department of Harvard University." Students enrolled in, or expecting to enroll in, the Law School should ordinarily apply for the Jens Iverson Westengard Fund administered by that School.

*1902 WORLD WAR MEMORIAL SCHOLARSHIP (1923). Gift of the Class of 1902 in memory of their classmates, André Chéronnet-Champollion, Edward Ball Cole and Elbert Walker Shirk, and to be awarded by preference to: (1) deserving sons of 1902 men killed in World War I; (2) deserving descendants of members of the Class of 1902. Open to students in any department of the University, with preference to undergraduates. If no awards are made to preferential candidates, the income shall be assigned to the College Admission and Scholarship Committee.

LOAN FUNDS

*Jeffries Wyman Scholarships (1924). Bequest of Mary Wyman Davis in the name of Susan Wyman and Mary Wyman Davis. For one or more students in any graduate department of the University "who may have given promise of success in some branch of Biological Research," preference to be given to students of anatomy. Nominations are made before *March 1* to the Committee on General Scholarships by a committee consisting of the Hersey Professor of Anatomy, the James Stillman Professor of Comparative Anatomy and the Director of the Museum of Comparative Zoölogy.

LOAN FUNDS

Loan funds are available in the Medical School to which students who are in need of money may make application.

Loans are usually made to meet term bills and cash is provided rarely. Short term loans, for a period of less than six months, are available under special circumstances. In case of unforeseen emergency, loans may be made at any time.

Ordinarily, loans are made at an interest rate of 1% per year, chargeable on the first of July and continuing at this rate until the July 1st subsequent to the completion of three years following a borrower's graduation from the School. Thereafter, interest at the rate of $4\frac{1}{2}\%$ per year is charged annually on July 1st on outstanding loans.

In cases where the student borrower, for any reason, leaves the School prior to graduation, interest at the rate of 1% will be charged from the date of the loan until the date of separation from the School, and interest at the rate of $4\frac{1}{2}\%$ will be charged thereafter.

Notes are payable at any time but become due on July 1st five years after graduation.

Application should be made to the Associate Dean for Student Affairs.

MEDICAL SCHOOL

Frank W. and Carl S. Adams Memorial Loan Fund (1955). Established by the Charles E. and Caroline J. Adams Trust as a revolving loan fund.

DAVID L. EDSALL REVOLVING LOAN FUND (1928). Dr. Frederick C. Shattuck established this fund by gift of \$100,000 to be used as a revolving loan fund.

CHARLES WILLIAM ELIOT LOAN FUND (1924). Given anonymously in honor of President Eliot. Principal and interest to be used for loans to students in the Medical School.

GEORGE B. AND LOUISE KERPER FUND (1956). Established by Edmund Kerper as a revolving loan fund in memory of George B. and Louise Kerper.

GEORGE W. MERCK MEMORIAL FUND (1959). Established by the Merck Company Foundation as a revolving loan fund to assist fourth year students in financing their internships.

HARVARD WAR LOAN (1920). HARRIET P. KEITH LOAN (1921). FRANCIS I. PROCTOR AID FUND (1942). Harvard Medical School Loan (1954).

SCHOOL OF DENTAL MEDICINE

THE CHRISTIAN SOLDIER FUND (1925). Established by Miss Caroline F. Anderson for promising dental students. The loan carries no interest but the recipient must sign a note obligating him to repay the loan not later than five years from the date of the note.

DENTAL ALUMNI LOAN FUND (1927). Established and maintained by the Dental Alumni Association for financial aid to worthy students.

LUCINDA DAVIS FERNALD FUND (1936). A small fund, the gift of Adelbert Fernald, D.M.D. 1896, to be loaned to deserving New England-born students of good character.

LOAN FUNDS

ROBERT T. MOFFATT FUND (1925). A small fund from various contributors in memory of Robert T. Moffatt, D.M.D. 1895, for the benefit of needy and deserving students.

School of Dental Medicine Revolving Loan Fund (1952). Recognizing the need for student loan money in the School, the President and Fellows of Harvard College authorized an appropriation to establish this fund.

School of Dental Medicine Loan Fund (1953). An appropriation from the School's funds to establish additional loan money for needy students.

Beneficiary and Loan Funds Available in Other Departments of the University as well as in the Medical School and School of Dental Medicine

BENEFICIARY FUNDS

*Charles William Eliot Fund (1926). Established by the alumni in honor of Charles William Eliot on the occasion of Mr. Eliot's resignation as President and in recognition of his forty years of service. The income is to be divided between (a) grants of aid to descendants in the direct line of Mr. Eliot who need financial assistance and who are enrolled in any department of the University or in Radcliffe College, and (b) the support of instruction and research in Landscape Architecture.

*Calvin and Lucy Ellis Aid (1899). Bequest of Calvin Ellis, A.B. 1846, M.D. 1849, supplemented by a residuary bequest under the will of his sister, Miss Lucy Ellis. To pay the fees of tuition and instruction, the cost of text-books, room-rent and reasonable board, of such descendants of David Ellis and Beulah Newell, formerly of Dedham, Mass. and John Ellis and Hannah Ellis, formerly of Walpole, Mass., as may be students in any department of Harvard University. Birth certificate and proof of descent from Ellis family required.

HARRISON-DARLING-JENKS MEMORIAL FUND (1935). Bequest of Miss Laura Darling Jenks. For aiding students in attaining an education at Harvard University. Income assigned to the College Admission and Scholarship Committee.

LOAN FUNDS

The following Loan Funds are to be used for students in any department of the University. Students apply through their own Deans. Loans are made according to the terms ordinarily applied by the individual Schools. Applications may be obtained from the several Deans' Offices or from the General Scholarship Office, 906 Holyoke Center, Cambridge.

*JOHN W. APPEL LOAN FUND (1919). Restricted to descendants of John W. Appel of Lancaster, Pennsylvania, or their appointees.

Frank Gaylord Cook Loan Fund (1951).

- *The Harvard Club of Washington, D.C., Loan Fund (1957). Preference for students resident in the Washington, D.C. area.
- *New Century Club of Boston Loan Fund (1926). Preferably for men pursuing courses of study in Hebraic literature, culture and philosophy.

Jessie Smith Noves Foundation, Inc. Loan Fund (1960). To establish a revolving loan fund.

Nelson Robinson, Jr. Loan Fund (1941).

JAMES G. RODGER LOAN FUND (1883).

WILLIAMS FUND (1942).

PRIZES

MEDICAL SCHOOL

ISAAC ADLER (1934). Frida Adler. To be awarded once in three years for the best piece of original research within that period in the United States or Canada on any subject within the medical or allied sciences.

HARVARD MEDICAL ALUMNI ASSOCIATION PRIZE. To be awarded each year to the Permanent President of the Graduating Class. It has three purposes: to extend a greeting from the old Alumni to the new, to accord respect to the graduating class by honoring its chosen leader, to select for honor a man with whom long and cordial association is confidently anticipated.

BOYLSTON FUND FOR MEDICAL PRIZES (1803). Dr. Ward Nicholas Boylston. For the promotion of research in medical, anatomical, physiological or chemical subjects relating to medical science.

HENRY ASBURY CHRISTIAN (1937). Dr. Samuel A. Levine. To be awarded annually on or about the seventeenth of February, which is Dr. Christian's birthday, to the student in the Fourth Year Class who has displayed diligence and notable scholarship in his studies and offers promise for the future.

LEON REZNICK MEMORIAL PRIZE (1958). To be awarded to a fourth year student who has shown excellence and accomplishment in research conducted during his period of study at the Harvard Medical School. Candidates for the award must submit a typewritten paper to the Dean's Office by April 1.

JAMES TOLBERT SHIPLEY PRIZE (1952). Harriet S. Parker. Awarded as a prize for research carried out by a medical student, the results of which have been published or accepted for publication. Candidates for the award must submit papers to the Dean's Office by April 1.

Soma Weiss Award. Awarded each year at the Undergraduate Assembly (see page 89).

SCHOOL OF DENTAL MEDICINE

HARVARD DENTAL ALUMNI MEDALS (1953). The Harvard Dental Alumni Association awards its gold and silver medals annually for all-around scholastic excellence.

HARVARD ODONTOLOGICAL SOCIETY (1949). The Harvard Odontological Society each year presents a Certificate of Merit to the

best Senior Seminar Essayist of that year. This senior is selected by the Awards Committee of the School of Dental Medicine.

DR. GRACE MILLIKEN (1950). An award given annually when practicable, but at least once in three years, for an outstanding essay on the general subject of dental health.

LECTURESHIPS

The Edward K. Dunham Lectures for the promotion of the medical sciences have been given annually since 1923 by eminent investigators and teachers in one of the branches of the medical sciences or of the basic sciences which contribute toward the advance of medical science in the broadest sense. The lectures are open to the Faculty and students of the Harvard Medical School and College and all other interested professional persons. The lectures are given under the fund established for that purpose by Mary Dows Dunham in memory of her husband, Dr. Edward K. Dunham.

The George W. Gay Lectures upon Medical Ethics are given annually at the Harvard Medical School. The fund for the establishment of these lectures was given in 1917 by Dr. George W. Gay.

The J. Howard Mueller Lectures are given annually at the Harvard Medical School. The fund for the establishment of these lectures was established in 1958 to honor the late J. Howard Mueller, Charles Wilder Professor of Bacteriology and Immunology.

The Alpha Omega Alpha Lecturer is to be nominated each year by the Alpha Omega Alpha Society. The honorarium and expenses of the lectureship to be supported from the fund established by the Society in 1952.

The Hanns Sachs Lectures in the field of Freudian psychoanalysis are supported by a gift in memory of Dr. Sachs. One or more may be given in any year.

The Dr. Andrew Yeomans Lectureship Fund has been estab-

CANCER COMMISSION

lished by members of the Class of 1934 and the Class of 1935 and friends in memory of Dr. Yeomans. Lectures are to be given annually and the lecturer will be chosen from young clinicians in the fields of clinical research by a committee named by the donors.

THE CANCER COMMISSION OF HARVARD UNIVERSITY

Under the will of the late Mrs. Caroline Brewer Croft a sum of money was received in 1899 for the investigation of the cause and treatment of cancer. Since that time other sums have been contributed for cancer research and the Cancer Commission of

Harvard University has been organized.

The Commission supports the Huntington Hospital beds, outpatient department, and cancer research laboratories at the Massachusetts General Hospital. It provides a service for pathological diagnosis of tumor tissue for the State of Massachusetts. This service was transferred in 1951 from the buildings of the Harvard Medical School to the Cancer Research Institute of the New England Deaconess Hospital. This service is carried on in part in a special laboratory at the Lemuel Shattuck Hospital, in part in laboratories at the Cancer Research Institute of the New England Deaconess Hospital.

The functions of the Cancer Commission are exercised by the Committee on Research and Development which is made up of the following members: Nathan Marsh Pusey, Chairman; George Packer Berry, Roy Orval Greep, Francis Keppel, James Robbins Reynolds, John Crayton Snyder, Lewis Gard Wiggins, Henry Coe Meadow, Executive Secretary.

RESEARCH FUNDS

Application for support of investigations falling within the scope of any of the following research funds should be sent to the Chairman of the Committee or to the Dean.

REAR ADMIRAL W. L. CAPPS FUND

In 1949 a bequest was received from Edna Ward Capps to be known as the Rear Admiral W. L. Capps Fund, the income from which, under certain circumstances, to be used broadly for the cure and treatment of persons afflicted with diabetes. George W. Thorn, M.D., is Chairman of the Committee administering the income from this fund.

PROCTOR FUND

A bequest of fifty thousand dollars by Ellen Osborne Proctor, for the purpose of promoting the study of chronic diseases, subsequently has been increased by an additional fifty thousand dollars from another member of the Proctor family. The income of this fund is to be devoted to investigations into the nature and treatment of chronic diseases and the care of persons afflicted with these diseases while in hospitals for such investigations. Arthur T. Hertig, M.D., is Chairman of the Committee administering the income from this fund.

WILLIAM W. WELLINGTON FUND

In 1925 a bequest was received from William H. Wellington to establish the "William W. Wellington Memorial Research Fund." The income of this fund is to be applied for research concerning the etiology and therapeutics of the diseases of man. Arthur T. Hertig, M.D., is Chairman of the Committee administering the income from this fund.

OPPORTUNITIES FOR RESEARCH

The laboratories of the Medical School and its associated hospitals provide exceptionally rich opportunities for each medical student to participate in a research program in the field of his

THE UNDERGRADUATE ASSEMBLY

special interest. The wide variety of investigations underway in basic and clinical sciences assures each student of the facilities to learn special techniques and to pursue an investigation of his choice.

Each medical student is encouraged to devote some of the free time during the school year and the summer months to a research program. Exceptional students may be permitted to withdraw from medical school for a year to devote full time to research. Any student in good academic standing and who has shown promise in research may be granted the privilege of devoting up to six months of his fourth scholastic year to research under the Honors Tutorial System in place of certain of the clinical courses usually required. A considerable number of fellowships are available for the support of students engaged in summer and part-time research.

Any student interested in undertaking research is urged to discuss his program with the Associate Dean for Student Affairs or one of the Honors Tutors.

THE UNDERGRADUATE ASSEMBLY

The Undergraduate Assembly, held late in the spring of each year under student auspices, provides an opportunity for students from all classes to present formally the results of their investigations to the students and Faculty of the Medical School. The Soma Weiss Award is made at this meeting.

GENERAL PLAN OF INSTRUCTION

On the following pages will be found a brief description of the plan of instruction for each of the four years of Medical School, followed by a statement of the general plan of instruction offered by each Department.

GENERAL PLAN OF THE FIRST TWO YEARS

In general, during the first semester of each of the first two years, individual departments introduce selected material characteristic of their particular disciplines. In the second semester of each year, the departments collaborate in the presentation of a unified approach to various problems of human biology.

In the first year, the first semester is devoted to a study of gross anatomy, an introduction to histology and cytology, and to the fundamentals of physiology and biochemistry. During the second semester, the anatomy (macro- and micro-), physiology and biochemistry relevant to studies of the body fluids, respiration, the liver and the kidney, and the nervous, gastro-intestinal and endocrine systems is presented in an inter-departmental framework. A course entitled "Growth and Development," covering both somatic and psychic aspects is presented throughout the year (see below). A diagrammatic summary of these arrangements is presented on page 96.

In the first semester of the second year, the Departments of Bacteriology, Pathology and Pharmacology offer courses in their respective disciplines. A number of correlated interdepartmental exercises are also included. The last portion of the semester is devoted to chemotherapy taught jointly by the Departments

of Bacteriology and Pharmacology.

During the second semester a correlated program in pathologic physiology is given. Mechanisms of disease are presented in a unified course by members of the Departments of Gynecology, Medicine, Neurology, Obstetrics, Pathology, Pediatrics, Pharma-

PLAN OF INSTRUCTION

cology, Preventive Medicine, Psychiatry, Radiology, Surgery, and Tropical Public Health. In addition, practical instruction in the taking of case histories and physical examinations is given on the wards and out-patient departments of the hospitals at which there are Harvard teaching units. Aspects of "Growth and Development" are again discussed throughout the year (see below). A diagrammatic summary of the arrangements for the second year is presented on page 97.

The course entitled "Growth and Development" embraces a

The course entitled "Growth and Development" embraces a series of lectures, laboratories and clinics in a variety of subjects, with the objects of offering further integration of the material of the first two years, and introducing a number of topics of importance in medicine. It is concerned with the whole individual in his setting, with emphasis on both physical and psychological growth. In the first year, discussions are in general centered about the normal individual, and topics such as embryology, genetics, and the fundamentals of normal behavior are presented. A series of clinics relates the material of the course in the first year to problems of human development and variation. During the second year, in addition to an introduction to the evaluation of data by biostatistical methods, a series of lectures develops further concepts of individual psychologic functioning. Emphasis now shifts to the nature and genesis of abnormal psychological mechanisms which result from both social and physical factors and are manifested in symptoms and behavioral disturbances.

GENERAL PLAN OF THE THIRD AND FOURTH YEARS

The instruction in the third and fourth years is carried on at the teaching hospitals affiliated with the Medical School. It is designed to teach the student to apply the principles of normal and abnormal human biology, acquired in the first two years, to the diagnosis and treatment of disease.

In the third year the teaching is by lectures, clinical demonstra-

tions and practical work with patients. The practical instruction takes place in small groups on the wards or in the outpatient departments of the hospitals. Courses are required in Dermatology, Genito-urinary Surgery, Gynecology, Legal Medicine, Medicine, Neurology, Obstetrics, Ophthalmology, Otology and Laryngology, Orthopedic Surgery, Pediatrics, Preventive Medicine, Psychiatry, and Surgery.

In the fourth year the student continues his broad study of disease and begins to assume some responsibility for the care of patients. This is accomplished by service as a clinical clerk on the hospital wards and as an assistant in the outpatient clinics. Eight months of work is required: two months each of Medicine and Surgery; one month each of Obstetrics, Pediatrics, and Psychiatry; and at least one month of an elective course. In addition, students may elect courses for one, two, or three additional months by working during the summer between the third and fourth years.

ELECTIVE AND VOLUNTARY COURSES

In addition to the requirement of one elective course in the fourth year, opportunities for voluntary work are offered to first, second, and third year students on free afternoons, and to fourth year students during the additional months mentioned above. It is believed that students will welcome a chance to keep in touch with the most recent developments in the fundamental sciences; that an interest in certain fundamental subjects will have been aroused by their clinical work; or that they may feel the desire for additional exploration in some field. Students are not required to take this work. It is entirely a voluntary matter, and no credit is given.

There are also opportunities for association with voluntary groups interested in studying the economic, social and historical aspects of medicine.

PLAN OF INSTRUCTION

THE TUTORIAL PROGRAM AND STUDENT RESEARCH

The Tutorial Program was established in 1923 to foster student interest and participation in research. In 1957 it was expanded to provide each entering student with a tutor for his first year. Some twenty-five Tutors in Medical Sciences are appointed annually to enable first year students to meet informally in groups of five with a tutor. These weekly meetings are intended to assist the student in organizing and correlating his knowledge and to point out the implications and applications of the knowledge of basic science gained in the formal courses to clinical medicine and to research. These are not intended to be review sessions or to prepare students for examinations in the formal courses, but to develop better understanding of the medical sciences as a whole and of medicine as an art and profession. In addition the expanded Tutorial System provides an opportunity for each student during his first year to become well acquainted with some member of the Faculty to whom he may turn for advice in planning his medical career and in other matters.

The Honors Tutorial Program of the second, third and fourth years is designed primarily to aid students who wish to undertake original research in one of the medical sciences during their medical school careers. Students doing research, or planning to do research, are assigned to the appropriate Tutor for guidance. The Tutors may organize seminars and symposia to assist students to decide on a field of research or to formulate a specific research problem. They also help the student by placing him with the member of the Faculty whose research interests are in his field

and who is best suited to guide his research.

Students may devote free time during the school year and the summer months to this research problem. Fellowships are available for the financial support of student research both during the summer months and during the school year. Fourth year students who have shown promise in extracurricular research may request the privilege of replacing certain clinical courses with four to six months completely free for research in any of the basic

sciences or in any of the clinical divisions. Application for this privilege must be made before March 1 of the student's third year. Students also have the opportunity to withdraw from medical school for a year to pursue a research problem. (See section on "Opportunities for Research" page 88.) The results of the research may be presented as a thesis at the end of the fourth year in support of the student's candidacy for the medical degree with Honors in a Special Field.

Abbreviations used in the following pages:

B.C.H. = Boston City Hospital.	M.M.H.C.	= Massachusetts Mental
B.I.H. = Beth Israel Hospital.		Health Center.
B.L.I.H. = Boston Lying-in Hos-	Mt.A.H.	= Mount Auburn Hos-
pital.		pital.
C.H.M.C. = The Children's Hos-	N.E.C.H.	= New England Center
pital Medical Center.		Hospital.
C.M.C. = Children's Medical	N.E.D.H.	= New England Dea-
Center.		coness Hospital.
F.H.W. = Free Hospital for	P.B.B.H.	= Peter Bent Brigham
Women.		Hospital.
H.M.S. = Harvard Medical	P.L.I.H.	= Providence Lying-in
School.		Hospital.
L.I.H. = Long Island Hospital.	R.B.B.H.	= Robert Breck
McL.H. = McLean Hospital.		Brigham Hospital.
M.E.E.I. = Massachusetts Eye and	S.D.M.	= School of Dental
Ear Infirmary.		Medicine.
M.G.H. = Massachusetts General	S.P.H.	= School of Public
Hospital.		Health.
M.I.T. = Massachusetts Institute	W.R.V.A.H	I.= West Roxbury Veter-
of Technology.		ans' Administration
		Hospital.

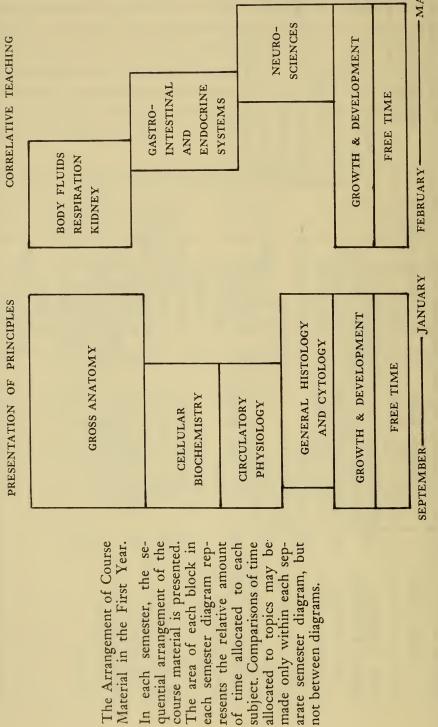
PLAN OF INSTRUCTION

DIVISION OF HOURS

FOURTH YEAR	Medicine 288 37 Surgery 288 43 Obstetrics and 44 Gynecology 144 220 Psychiatry 144 27 Elective 144 27 Eventive Medicine 43 Survey 50 45 46 47 47 48 49 40 40 40 41 41 42 41 42 43 44 44 44 45 46 47 46 48 49 40 40 40 40 40 40 40 40 40 40 40 40 40
THIRD YEAR	Medicine 2 Dermatology
SECOND YEAR	Bacteriology 3 (including Parasitology and Neuropathology) Pharmacology 5 Pathologic Physiology * 5 Growth and Development: Biostatistics Introduction to Psychopathology Obstetrics and Gynecology
FIRST YEAR	Gross Anatomy . 245 General Histology and Cytology . 127 Circulatory Physiology

* A multidepartmental integrated course which includes Case Taking (Medicine and Surgery) and Laboratory Diagnosis.

FIRST YEAR



not between diagrams.

FIRST SEMESTER

SECOND SEMESTER

CORRELATIVE TEACHING

The various organ systems are treated in the order shown below.

Hematopoietic system (68 hours) Gastrointestinal system (44 hours) Cardiovascular system (46 hours) Respiratory system (37 hours) Renal system (37 hours) Endocrine system (46 hours) Case Taking (171 hours) Nervous system (70 hours)

The following courses are also taught during the second semester:

Parasitology (41 hours) Psychiatry (34 hours)

CHEMOTHERAPY GROWTH & DEVELOPMENT PHARMACOLOGY BACTERIOLOGY PATHOLOGY The Arrangement of the Course Material in the Sec-The area of each block in allocated to each subject. the first semester represents the relative amount of time The correlative teaching consists of a large course on

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ond Year.

-IANUARY SEPTEMBER-

PRESENTATION OF PRINCIPLES

FREE TIME

the mechanisms of disease

of a course in the methods of history taking and physi-

cal diagnosis (Case-Taking)

(Pathologic Physiology), and

JANUARY-

THIRD YEAR

SATURDAY		f of Class: I Medicine Dermatology II Neurology Psychiatry of Class: I Surgery Genito-Urinary Surgery II Gynecology Of Class: Cology and Laryngology of Class: I Orthopedic Surgery Orthopedic Surgery Orthopedic Surgery Orthopedic Surgery Ophthalmology	FREE	
FRIDAY	Lecture	† of Class: I Medicine CDermatology II Neurology Psychiatry † of Class: I Surgery Genito-Urinary Surgery II Gynecology Otology and Laryngology † of Class: Class: I Corthopedic Surgery Otology and Class: Aryngology † Of Class: Class: Corthopedic Surgery Corthopedic Surgery Obstetrics and II Corthopedic	Lecture Preventive Medicine 2-5 (Oct. 26-Feb. 1) Legal Medicine 4:15-5:15	
THURSDAY	Lecture	† of Class: I Medicine Dermatology Il Neurology Psychiatry of Class: I Surgery Genito-Urinary Surgery Il Gynecology Otology and Laryngology † of Class: Pediatrics I Orthopedic Surgery Otology and Laryngology A of Class: Class: A of Class: A of Class: Class: A of	FREE	
WEDNESDAY	Lecture	f of Class: I Medicine Dermatology II Neurology Psychiatry of Class: I Surgery Genito-Urinary Surgery II Gynecology Otology and Laryngology Laryngology of Class: Aryngology Otology and Laryngology Laryngology Surgery Surgery Otology and Laryngology Surgery Otology and Laryngology Surgery Otology and Laryngology II Orthopedic Surgery Orthopedic Surgery Orthopedic Orthopedic	of Class: Medicine for Class: Surgery for Class: Pediatrics Corrhopedic Surgery Obstetrics and Goneology Ophthalmology	
TUESDAY	Lecture	of Class: Medicine Dermatology Neurology Psychiatry Surgery Genito-Urinary Guise Gurgery Guology and Laryngology Class: Crhopedic Orthopedic Orthopedic Obstetrics and Chass: Obstetrics and Chopthalmology	FREE	
Monday	Lecture	f of Class: I Medicine Dermatology II Neurology Psychiatry of Class: I Surgery Genito-Urinary Surgery II Gynecology Otology and Laryngology Laryngology Of Class: I Orthopedic Pediatrics I Orthopedic Obstetrics and Obstetrics and Obstetrics and Obstetrics and Obstetrics and Obstetrics and	d of Class: Medicine of Class: Surgery of Class: Surgery or Class: It orthopedic Surgery obstetrics and Costerrics and Costerr	
Hour	8-9	9:30–1	2-5 2-7 	

The Thirds assigned to medicine and surgery are divided into two groups as indicated in the schedule:

Group I — Has Medicine (or Surgery) on Mondays, Wednesdays, and Fridays and the medical (or surgical) specialties on Tuesdays, Thursdays, and Saturdays. The Class is divided into Thirds and the Thirds interchange every 64 days.

Group II — Has Surgery (or Medicine) on Tuesdays, Thursdays, and Saundays and the surgical (or medical) specialties on Mondays, Wednesdays, and Fridays. The remaining Third, also divided into two groups as indicated in the schedule, interchanges every 32 days.

PLAN OF INSTRUCTION

FOURTH YEAR

Each block represents one month. Order of subjects variable.

4	SURGERY	80	Elective		
3	SURGERY		7	Psychiatry	
2	Medicine		9	PEDIATRICS	
1	Medicine		5	OBSTETRICS AND GYNECOLOGY	
	Morning	AFTERNOON		Morning	AFTERNOON

ANNOUNCEMENT OF COURSES

DEPARTMENT OF ANATOMY

- Don W. Fawcett, M.D., Hersey Professor of Anatomy, James Stillman Professor of Comparative Anatomy, Head of the Department, and Curator of the Warren Anatomical Museum.
- ROY O. GREEP, Ph.D., A.M. (hon.), S.D. (hon.), Professor of Anatomy in the School of Dental Medicine.
- SANFORD L. PALAY, M.D., A.M. (hon.), Bullard Professor of Neuroanatomy.
- EDWARD A. EDWARDS, M.D., Associate Clinical Professor of Anatomy.
- Franklin F. Snyder, M.D., A.M. (hon.), Associate Professor of Anatomy and Obstetrics.
- GEORGE E. ERIKSON, Ph.D., Assistant Professor of Anatomy (part-time), and Associate Curator of the Warren Anatomical Museum.
- ELIZABETH D. HAY, M.D., Assistant Professor of Anatomy, and Tutor in Anatomy.
- CHARLES P. LYMAN, Ph.D., Assistant Professor of Anatomy.
- HELEN A. PADYKULA, Ph.D., Assistant Professor of Anatomy.
- JESSE F. Scott, M.D., Assistant Professor of Anatomy.
- STANLEY J. ADELSTEIN, M.D., Philip H. Cook Fellow in Radiology, and Associate in Anatomy.
- JAY B. ANGEVINE, JR., Ph.D., Associate in Anatomy.
- Susumu Ito, Ph.D., Associate in Anatomy.
- JEAN-PAUL REVEL, Ph.D., Associate in Anatomy.
- WILLARD D. ROTH, Ph.D., Associate in Anatomy.
- George Szabo, Ph.D., Associate in Anatomy in the Department of Dermatology.
- CHRISTOPHER O'MORCHOE, M.D., Instructor in Anatomy.
- JACK ROSENBLUTH, M.D., Instructor in Anatomy.

SERGEI P. SOROKIN, M.D., Instructor in Anatomy (on leave September 15, 1962 through June 30, 1963).

IRWIN BERMAN, Ph.D., Research Fellow in Anatomy (from January 1, 1963).

RICHARD E. COGGESHALL, M.D., Research Fellow in Anatomy.

JOHAN C. H. DE MAN, M.D., Research Fellow in Anatomy (from August 1, 1962).

WIKTOR DJACZENKO, M.D., Research Fellow in Anatomy (appointment expired September 30, 1962).

Wolf H. Fahrenbach, Ph.D., Research Fellow in Anatomy.

GERALDINE F. GAUTHIER, M.S., Research Fellow in Anatomy (appointment expired August 31, 1962).

Joe L. Griffin, Ph.D., Research Fellow in Anatomy (from September 1, 1062).

Arnold J. Schecter, M.D., Research Fellow in Anatomy (from October 16, 1962).

ELIZABETH TABER, Ph.D., Research Fellow in Anatomy.

JOHN VENABLE, D.V.M., Research Fellow in Anatomy.

DAVID E. WOLFE, M.D., Research Fellow in Anatomy (from September 1, 1962).

ROBERT D. STATON, M.S., Teaching Fellow in Anatomy.

Affiliated:

RICHARD L. SIDMAN, M.D., Assistant Professor of Neuropathology. WILLIAM H. TIMBERLAKE, M.D., Assistant Clinical Professor of Neurology.

The Department of Anatomy offers instruction in gross human anatomy, histology and cytology, embryology and neuroanatomy. Opportunities are also afforded for advanced work and research in these subjects. The Department occupies the Morgan Anatomical Building in the first three floors of the wing designated as BI, and the first two floors of BII. This space includes offices and research laboratories of the staff, rooms for graduate students and fellows, seminar rooms, a photographic department and laboratories devoted to histochemistry, tissue culture, and electron microscopy.

There is a large departmental library containing complete files of the important journals in the fields of anatomy, developmental biology, and experimental cytology, together with many standard textbooks and works of reference. The library is open to staff, students and others, on a non-circulating basis.

The Minot Embryological Collection is a unique feature of the laboratory. It comprises approximately twenty-three hundred series of sections of selected vertebrate embryos representing a wide range of species and therefore affords opportunities for research in comparative embryology such as cannot be found elsewhere.

The Department also has valuable neurological material for both teaching and research, including two entire human brains cut serially in the transverse and horizontal planes, with the sections alternately stained by the Pal-Weigert and Nissl methods.

Required Courses

Anatomy A and B. First Year. — The courses of the first year are intended to teach human anatomy, both gross and microscopic, together with the essentials of human embryology and neurology.

In the study of gross anatomy, students make a complete dissection of the human body in the first semester. Four students are assigned to the same body, and will work together during the course. The study of the skeleton is carried on concurrently with the dissection, and each student is provided with a box of bones which may be kept throughout the course. There are lectures and demonstrations which will serve to emphasize the clinical application of gross anatomical relations and to teach certain aspects of human biology not adequately treated in the textbooks. Special dissections made by prosectors from the second year class, and various anatomical specimens and preparations will be displayed to supplement the student's own dissections. Students are urged to study these specimens and to discuss them informally with the instructors.

That part of the course in microscopic anatomy given in the first semester is intended to give the student familiarity with the normal structure of cells and tissues as they appear under light microscope and with their finer structure as revealed by the electron microscope. The histology presented in the second semester forms part of the correlative teaching in which the structure, physiology and biochem-

ANATOMY

istry of the major organ systems are studied. Demonstrations of fresh tissue are prepared for examination with phase contrast and interference microscopy, and special cytological and histochemical preparations are displayed to present the broad range of techniques used in morphological investigations.

Embryology is taught in conjunction with the principles of genetics

in a series of lectures extending throughout the first semester.

Neuroanatomical instruction is given as a part of the section of correlative teaching designated "Neurosciences."

FIRST YEAR

HOURS

Lectures. Drs. Fawcett, Palay, Edwards, Erikson, Hay, Padykula, Scott, Sidman, Szabo, Angevine, Ito, Revel, Adelstein, Roth, Rosenbluth, and Sorokin.

Demonstrations. To sections of the class, at the pleasure of the instructors.

Laboratory work.

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Fourth Year Elective Courses

- 1. Surgical Anatomy. Dr. Edwards and Associates. Whole course, one month.
- 20. Investigation in:

Cytology and cell ultrastructure. Drs. FAWCETT and Ito.

Experimental embryology. Dr. HAY.

Histophysiology and histochemistry. Dr. Padykula.

Human and comparative anatomy. Dr. Erikson.

Environmental and comparative physiology. Dr. LYMAN.

Neuroanatomy. Dr. Angevine.

DEPARTMENT OF BACTERIOLOGY

- Bernard D. Davis, M.D., Professor of Bacteriology and Immunology, and Head of the Department.
- GEORGE P. BERRY, M.D., LL.D., A.M. (hon.), S.D. (hon.), LITT.D., L.H.D., Professor of Bacteriology, and Dean of the Faculty of Medicine.
- Albert H. Coons, M.D., Career Investigator of the American Heart Association, and Visiting Professor of Bacteriology and Immunology.
- John F. Enders, Ph.D., University Professor.
- Monroe D. Eaton, M.D., Associate Professor of Bacteriology and Immunology.
- Luigi C. Gorini, Ph.D. (Equiv.), American Cancer Society Associate Professor of Bacteriology and Immunology.
- Mahlon B. Hoagland, M.D., Associate Professor of Bacteriology and Immunology, and Ruby Boyer Miller Fellow in Medical Research.
- EDWARD H. KASS, Ph.D., M.D., A.M. (hon.), Associate Professor of Bacteriology and Immunology.
- HAROLD AMOS, Ph.D., Silas Arnold Houghton Assistant Professor of Bacteriology and Immunology and Tutor in Microbiology.
- Arnold F. Brodie, Ph.D., Assistant Professor of Bacteriology and Immunology.
- SIDNEY LESKOWITZ, Ph.D., Assistant Professor of Bacteriology and Immunology at the Massachusetts General Hospital.
- HARRIS S. MOYED, Ph.D., Assistant Professor of Bacteriology and Immunology.
- Byron H. Waksman, M.D., Assistant Professor of Bacteriology and Immunology at the Massachusetts General Hospital.
- Donald T. Dubin, M.D., Associate in Bacteriology and Immunology (from January 1, 1963).
- Howard Goldfine, Ph.D., Associate in Bacteriology and Immunology (from January 1, 1963).

BACTERIOLOGY

LAWRENCE J. J. Kunz, Ph.D., Associate in Bacteriology and Immunology at the Massachusetts General Hospital.

Mortimer Litt, M.D., Associate in Bacteriology and Immu-

nology.

HIROSHI NIKAIDO, M.D., Associate in Bacteriology and Immunology at the Massachusetts General Hospital (from January 1, 1963).

NATHAN CITRI, Ph.D., Visiting Lecturer on Bacteriology and Immunology (August 15, 1962 through January 31, 1963).

WILLIAM J. KUHNS, M.D., Visiting Lecturer on Bacteriology and Immunology (appointment expired August 31, 1962).

BRIGITTE A. ASKONAS, Ph.D., Research Associate in Bacteriology and Immunology (appointment expired October 15, 1962).

JEANA D. LEVINTHAL, M.D., Research Associate in Bacteriology and Immunology.

Iolanda E. Low, M.D., Research Associate in Bacteriology and Immunology.

BARBARA K. WATSON, Ph.D., Research Associate in Bacteriology and Immunology.

Donald T. Dubin, M.D., Instructor in Bacteriology and Immunology (July 1 through December 31, 1962).

Howard Goldfine, Ph.D., Instructor in Bacteriology and Immunology (September 1 through December 31, 1962).

ANN E. FARNHAM, Ph.D., Instructor in Bacteriology and Immunology (from January 1, 1963).

ELMER R. PFEFFERKORN, JR., PH.D., Instructor in Bacteriology and Immunology.

JOAN B. DANIELS, S.B., Assistant in Bacteriology and Immunology. CYRUS AHMAD-ZADEH, M.D., Research Fellow in Bacteriology

and Immunology (from January 1, 1963).

CHANDRA R. AMARASINGHAM, M.D., Research Fellow in Bacteriology and Immunology.

CHARLES T. AMBROSE, M.D., Research Fellow in Bacteriology and Immunology.

AKIRA ASANO, Ph.D., Research Fellow in Bacteriology and Immunology.

NICOLE A. BAUMANN, M.D., Research Fellow in Bacteriology and Immunology (from September 1, 1962).

Andre Cruchaud, M.D., Research Fellow in Bacteriology and Immunology (appointment expired September 30, 1962).

Julian E. Davies, Ph.D., Research Fellow in Bacteriology and Immunology (from September 1, 1962).

CARLA M. DEL CARPIO, M.D., Research Fellow in Bacteriology and Immunology (from October 1, 1962).

GEZA DENES, M.D., Research Fellow in Bacteriology and Immunology.

Mario Di Girolamo, Ph.D., Research Fellow in Bacteriology and Immunology.

HARVEY A. ELDER, M.D., Research Fellow in Bacteriology and Immunology.

Ann E. Farnham, Ph.D., Research Fellow in Bacteriology and Immunology (July 1 through December 31, 1962).

THOMAS T. FUKUYAMA, Ph.D., Research Fellow in Bacteriology and Immunology.

GARETH M. GREEN, M.D., Research Fellow in Bacteriology and Immunology.

Ronald Hancock, Ph.D., Research Fellow in Bacteriology and Immunology.

EDGAR C. HENSHAW, M.D., Research Fellow in Bacteriology and Immunology (July 1 through August 31, 1962).

CARL A. HIRSCH, M.D., Research Fellow in Bacteriology and Immunology.

EDWIN B. HOROWITZ, Ph.D., Research Fellow in Bacteriology and Immunology.

PHILIP KLUBES, Ph.D., Research Fellow in Bacteriology and Immunology (from October 1, 1962).

Howard Kuramitsu, Ph.D., Research Fellow in Bacteriology and Immunology.

Julio I. Maiztegui, M.D., Research Fellow in Bacteriology and Immunology.

MICHELINE M. MATHEWS, M.D., Research Fellow in Bacteriology and Immunology (from September 1, 1962).

BACTERIOLOGY

ARNOLD MEISLER, M.D., Research Fellow in Bacteriology and Immunology (from September 1, 1962).

JOHN H. PETERS, M.D., Research Fellow in Bacteriology and Im-

munology.

LAWRENCE M.B. RAZAVI, M.B., B.S., Research Fellow in Bacteriology and Immunology.

HOWARD S. RUBENSTEIN, M.D., Harold C. Ernst Research Fellow in Bacteriology and Immunology.

RUY SOEIRO, M.D., Research Fellow in Bacteriology and Immunology.

LAURI D. THRUPP, M.D., Research Fellow in Bacteriology and Immunology.

SHIGEZO UDAKA, Ph.D., Research Fellow in Bacteriology and Immunology (appointment expired July 31, 1962).

JACOB YASHPHE, Ph.D., Research Fellow in Bacteriology and Immunology (from September 1, 1962).

MICHAEL YUDKIN, Ph.D., Research Fellow in Bacteriology and Immunology (from September 1, 1962).

Affiliated:

JOHN C. SNYDER, M.D., Professor of Public Health Bacteriology, and Dean of the School of Public Health.

THOMAS H. WELLER, M.D., LL.D., Richard Pearson Strong Professor of Tropical Health in the School of Public Health.

HOWARD H. HIATT, M.D., Assistant Professor of Medicine.

MORTON N. SWARTZ, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.

KARL F. AUSTEN, M.D., Associate in Medicine at the Massachu-

setts General Hospital.

RONALD J. GIBBONS, PH.D., Associate in Bacteriology and Immunology at the Forsyth Dental Infirmary for Children.

SIGMUND S. SOCRANSKY, D.D.S., Associate in Dental Medicine at the Forsyth Dental Infirmary for Children.

BARBARA W. KALCKAR, PH.D., Research Associate in Bacteriology and Immunology in the Department of Medicine.

J. Gabriel Michael, Ph.D., Research Associate in Bacteriology and Immunology in the Department of Pediatrics.

Required Course

Bacteriology A. Second Year. — This course consists of lectures, laboratory exercises, and conferences, designed to acquaint the student with the principles of bacteriology, virology, immunology, allergy, and chemotherapy. The fungi will also be briefly considered.

The first part of the course consists of an introduction to general microbiology, including the structure, physiology, metabolism, and genetics of bacteria and bacteriophage. Attention will then be given to the agents of infectious disease, with emphasis on properties that are useful in their identification and in understanding their pathogenicity. The exercises on host-parasite relations and allergy will be correlated with pathology, while those on chemotherapy will be correlated with pharmacology. Clinics held in various hospitals will introduce the student to infectious disease in man.

While the course is designed primarily as a preparation for later clinical work on infectious disease, considerable attention will also be given to illustrating the use of unicellular organisms in studying problems of cell physiology common to all cells, including those of man.

SECOND YEAR

HOURS

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Lectures, laboratory work, and conferences. Dr. Davis and Staff. First half-year. Most exercises take place on Monday, Wednesday, and Friday afternoons with conferences on Saturday mornings.

Fourth Year Elective Courses

20. Research. Qualified students may arrange time with a member of the staff. Equipment and instruction are available for the usual procedures of the fields designated, and also for electron microscopy, animal cell culture, and localization of antigens and antibodies by fluorescence microscopy.

Cell physiology and metabolism. Drs. Davis, Hoagland, Gorini, Brodie, Moyed, Neidhardt, Dubin, and Goldfine. Virology. Drs. Enders, Eaton, Amos, and Pfefferkorn.

BACTERIOLOGY

Immunology. Drs. Coons, Waksman, and Leskowitz. Medical bacteriology and chemotherapy. Dr. Kass.

Voluntary Courses

- 30. Research. Opportunity for research can be arranged for qualified students upon consultation with members of the staff.
- 31. General Virology. Half course (spring term). Drs. Eaton, Amos, and Pfefferkorn. Tuesday afternoon. Lectures and discussion.
- 32. Immunology. Half course (spring term). Drs. Coons, Waksman, and Leskowitz. Tuesday or Thursday afternoon. Lectures and discussion.
- 33. Bacterial Genetics. Half course (spring term). Drs. Davis, Gorini, Hoagland, and Pfefferkorn. Thursday afternoon. Lectures and discussion.

DEPARTMENT OF BIOLOGICAL CHEMISTRY

- EUGENE P. KENNEDY, Ph.D., A.M. (hon.), Hamilton Kuhn Professor of Biological Chemistry, and Head of the Department.
- CHRISTIAN B. ANFINSEN, Ph.D., Professor of Biological Chemistry.
- ERIC G. BALL, Ph.D., S.D. (hon.), A.M. (hon.), Edward S. Wood Professor of Biological Chemistry, and Chairman of the Division of Medical Sciences of the Faculty of Arts and Sciences (on sabbatical leave February 1 through July 31, 1963).
- ELKAN R. BLOUT, Ph.D., A.M. (hon.), Professor of Biological Chemistry.
- JORDI FOLCH-PI, M.D., A.M. (hon.), Professor of Neurochemistry at the McLean Hospital.
- HERMAN M. KALCKAR, M.D., Ph.D., A.M. (hon.), Professor of Biological Chemistry at the Massachusetts General Hospital.
- Manfred L. Karnovsky, Ph.D., A.M. (hon.), Professor of Biological Chemistry and Secretary of the Faculty of Medicine.
- JOHN L. ONCLEY, Ph.D., A.M. (hon.), Professor of Biological Chemistry (resigned August 31, 1962).
- Lewis L. Engel, Ph.D., Associate Professor of Biological Chemistry, and Permanent Faculty Fellow of the American Cancer Society.
- ROGER W. JEANLOZ, D.Sc., A.M. (hon.), Associate Professor of Biological Chemistry at the Massachusetts General Hospital.
- WALTER E. KNOX, M.D., Associate Professor of Biological Chemistry at the New England Deaconess Hospital.
- *ARTHUR K. SOLOMON, Ph.D., D.Phil., Associate Professor of Biophysics.
- CLAUDE A. VILLEE, JR., Ph.D., A.M. (hon.), Associate Professor of Biological Chemistry at the Boston Lying-in Hospital, and Tutor in Biological Chemistry.
- John Gergely, M.D., Ph.D., Assistant Professor of Biological Chemistry (part-time).
 - * Appointment under the Committee on Medical Research in Biophysics.

BIOLOGICAL CHEMISTRY

- DWAIN D. HAGERMAN, M.D., Assistant Professor of Biological Chemistry and Tutor in Medical Science.
- SIDNEY V. RIEDER, Ph.D., Assistant Professor of Biological Chemistry at the Massachusetts General Hospital.
- MARGARET J. HUNTER, Ph.D., Lecturer on Biological Chemistry (resigned August 31, 1962).
- Joseph B. Alpers, M.D., Associate in Biological Chemistry.
- Donald G. Comb, Ph.D., Associate in Biological Chemistry at the Massachusetts General Hospital.
- STANDISH C. HARTMAN, Ph.D., Associate in Biological Chemistry.
- George Hauser, Ph.D., Associate in Biological Chemistry at the McLean Hospital.
- Francis N. LeBaron, Ph.D., Associate in Biological Chemistry at the McLean Hospital.
- EDMUND C. C. LIN, PH.D., Associate in Biological Chemistry.
- Donald F. H. Wallach, M.D., Associate in Biological Chemistry.
- ADELBERT AMES, 3D., M.D., Research Associate in Biological Chemistry.
- EDWARD J. BEHRMAN, Ph.D., Research Associate in Biological Chemistry.
- John L. Bethune, Ph.D., Research Associate in Biological Chemistry.
- ELIZABETH F. CLAFLIN, Ph.D., Research Associate in Biological Chemistry.
- John T. Clarke, Ph.D., Research Associate in Biological Chemistry.
- CAROLYN COHEN, Ph.D., Research Associate in Biological Chemistry.
- ROBERT A. DARROW, Ph.D., Research Associate in Biological Chemistry (from September 1, 1962).
- SUNIL K. DASGUPTA, Ph.D., Research Associate in Biological Chemistry (from September 1, 1962).
- Joseph Dobkin, Ph.D., Research Associate in Biological Chemistry (appointment expired October 31, 1962).
- KANEY EBISUZAKI, Ph.D., Research Associate in Biological Chemistry.

- Shou-Cheng J. Fu, Ph.D., Research Associate in Biological Chemistry.
- JOHN R. GILBERTSON, Ph.D., Research Associate in Biological Chemistry.
- LORNA L. GILMORE, Ph.D., Research Associate in Biological Chemistry.
- Mervyn Israel, Ph.D., Research Associate in Biological Chemistry.
- RAMCHANDRA K. KULKARNI, Ph.D., Research Associate in Biological Chemistry (from September 1, 1962).
- Susan Lowey, Ph.D., Research Associate in Biological Chemistry.
- Lewis T. Mann, Jr., Ph.D., Research Associate in Biological Chemistry.
- LEWIS C. MOKRASCH, Ph.D., Research Associate in Biological Chemistry.
- GORDON L. NORDBY, Ph.D., Research Associate in Biological Chemistry (appointment expired August 31, 1962).
- LILLIAN POTHIER, M.D., Research Associate in Biological Chemistry (from October 1, 1962).
- ERNEST T. PRITCHARD, Ph.D., Research Associate in Biological Chemistry.
- Addraju V.S.S. Ramarao, M.B., B.S., Research Associate in Biological Chemistry (from October 1, 1962).
- Annette M. C. Rapin, Ph.D., Research Associate in Biological Chemistry.
- WILLIAM J. REDDY, D.Sc., Research Associate in Biological Chemistry.
- Jonas E. Richmond, Ph.D., Research Associate in Biological Chemistry.
- SISIR K. SENGUPTA, Ph.D., Research Associate in Biological Chemistry.
- NATHAN SHARON, Ph.D., Research Associate in Biological Chemistry (from September 1, 1962).
- ELIZABETH R. SIMONS, Ph.D., Research Associate in Biological Chemistry (from September 1, 1962).

BIOLOGICAL CHEMISTRY

ROBERT G. Spiro, M.D., Research Associate in Biological Chemistry.

Anne M. Stoffyn, Ph.D., Research Associate in Biological Chemistry.

PIERRE J. STOFFYN, Ph.D., Research Associate in Biological Chemistry.

YASUO TAKAHASHI, M.D., Ph.D., Research Associate in Biological Chemistry (from September 1, 1962).

ALISA TIETZ-DEVIR, PH.D., Research Associate in Biological Chemistry (from October 1, 1962).

IRVING WELIKY, Ph.D., Research Associate in Biological Chemistry (resigned August 31, 1962).

CLIFFE D. JOEL, Ph.D., Instructor in Biological Chemistry.

HENRY PAULUS, Ph.D., Instructor in Biological Chemistry.

ELVERA J. ALGERI, S.B., Assistant in Biological Chemistry (from August 1, 1962).

TETSURO ABE, M.D., Research Fellow in Biological Chemistry (from September 1, 1962).

BABATUNDE K. ADADEVOH, M.B., B.S., Research Fellow in Biological Chemistry.

NEIL BAGGETT, Ph.D., Research Fellow in Biological Chemistry (resigned August 31, 1962).

Colin H. Bolton, Ph.D., Research Fellow in Biological Chemistry (resigned November 23, 1962).

Andrew H. T. Cheung, Ph.D., Research Fellow in Biological Chemistry (from September 1, 1962).

Annemarie Closse, Ph.D., Research Fellow in Biological Chemistry.

MARTIN COLODZIN, M.D., Research Fellow in Biological Chemistry (from October 1, 1962).

GARY R. CRAVEN, Ph.D., Research Fellow in Biological Chemistry (from September 1, 1962).

ROBERT A. DARROW, Ph.D., Research Fellow in Biological Chemistry (July 1 through August 31, 1962).

RENE DE HERTOGH, M.D., Research Fellow in Biological Chemistry (from November 1, 1962).

- JEAN P. FLATT, D.PHIL., Research Fellow in Biological Chemistry (appointment expired February 28, 1963).
- HAROLD M. FLOWERS, Ph.D., Research Fellow in Biological Chemistry.
- Anund Hallen, M.D., Research Fellow in Biological Chemistry.
- NANCY R. HARVIE, Ph.D., Research Fellow in Biological Chemistry (appointment expired August 31, 1962).
- Shin-ichi Hayashi, M.D., Research Fellow in Biological Chemistry.
- JOHN B. ISOM, M.D., Research Fellow in Biological Chemistry.
- SHARAD G. JOSHI, Ph.D., Research Fellow in Biological Chemistry.
- ROBERT L. JUNGAS, Ph.D., Research Fellow in Biological Chemistry.
- VIRENDRA KAMAT, Ph.D., Research Fellow in Biological Chemistry (from September 1, 1962).
- Julian N. Kanfer, Ph.D., Research Fellow in Biological Chemistry (resigned September 30, 1962).
- PHILIP C. KELLEHER, M.D., Research Fellow in Biological Chemistry and Tutor in Medical Science.
- James P. Koch, M.D., Research Fellow in Biological Chemistry.
- HELEN M. KORCHAK, Ph.D., Research Fellow in Biological Chemistry.
- KESHO R. LAUMIAS, Ph.D., Research Fellow in Biological Chemistry (appointment expired August 30, 1962).
- DAVID E. M. LAWSON, PH.D., Research Fellow in Biological Chemistry.
- Marjorie C. Lindberg, Ph.D., Research Fellow in Biological Chemistry (appointment expired September 15, 1962).
- HERBERT L. MAYER, Ph.D., Research Fellow in Biological Chemistry (from September 1, 1962).
- HIROSHI NIKAIDO, M.D., Research Fellow in Biological Chemistry (July 1 through December 31, 1962).
- TIRTHAHALLI S. MURTHY, Ph.D., Research Fellow in Biological Chemistry (from September 1, 1962).
- Toshiaki Osawa, Dr. Pharma. Sci., Research Fellow in Biological Chemistry (from September 1, 1962).

BIOLOGICAL CHEMISTRY

- Ronald A. Pieringer, Ph.D., Research Fellow in Biological Chemistry.
- JOHN F. P. RICHTER, Ph.D., Research Fellow in Biological Chemistry (from October 1, 1962).
- KAZUHISA SAITO, M.D., Research Fellow in Biological Chemistry.
- SARAH SHEFER, Ph.D., Research Fellow in Biological Chemistry (resigned December 31, 1962).
- Donald H. Treble, Ph.D., Research Fellow in Biological Chemistry.
- RONALD B. WILCOX, Ph.D., Research Fellow in Biological Chemistry.
- NEIL R. WILLIAMS, Ph.D., Research Fellow in Biological Chemistry (from September 1, 1962).
- EDMUND M. WISE, JR., Ph.D., Research Fellow in Biological Chemistry (from September 1, 1962).
- Kıwamu Yamaoka, Ph.D., Research Fellow in Biological Chemistry (from September 1, 1962).
- ROBERT ZAND, Ph.D., Research Fellow in Biological Chemistry.
- JAMES ELLINGBOE, B.S., Teaching Fellow in Biological Chemistry.
- Wesley D. Wicks, M.A., Teaching Fellow in Biological Chemistry.

Affiliated:

- FINN BRUDEVOLD, D.D.S., A.M. (hon.), Professor of Dentistry at the Forsyth Dental Infirmary.
- Fredrick J. Stare, Ph.D., M.D., Professor of Nutrition, S.P.H.
- D. MARK HEGSTED, Ph.D., Associate Professor of Nutrition, S.P.H.
- AMES H. SHAW, Ph.D., Associate Professor of Biological Chemistry in the School of Dental Medicine.
- GEORGE NICHOLS, JR., M.D., Assistant Professor of Medicine at the Peter Bent Brigham Hospital and Associate Dean for Academic Affairs.

Required Course

BIOLOGICAL CHEMISTRY A. First Year. — During the first semester the lectures in Biological Chemistry discuss the chemical components of living matter and the metabolic processes common to all tissues. Laboratory work deals with the physical and chemical concepts necessary to an understanding of living processes, and the fundamental chemical characteristics of biological compounds and enzymatic reactions.

During the second semester the lectures and laboratory work in biochemistry are interwoven with those given by the Departments of Physiology and Anatomy. In the first six weeks the Department of Biological Chemistry will deal with the following topics: inorganic chemical composition of body tissues and fluids and physical chemical factors governing their control: the transport of O₂ and CO₂ in the blood and acid-base balance. The gastro-intestinal and endocrine systems will be studied in the second five-week period. The Department will present the chemical processes involved in digestion and absorption; the intermediary metabolism of the liver; the chemistry and metabolism of cholesterol, the bile acids, and the steroid hormones; and the regulatory effects of hormones in general on metabolism. In the third six-week period, which explores the neuro-sciences, certain special aspects of the chemistry and metabolism of brain and nerve are the contributions of the Department of Biological Chemistry.

FIRST YEAR

TIOTIDE

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Lectures and laboratory work. Drs. Alpers, Anfinsen, Ball, Blout, Engel, Folch-Pi, Hagerman, Hauser, Hegsted, Jeanloz, Kalckar, Karnovsky, Kennedy, Knox, LeBaron, Lin, Paulus, Solomon, Stare, Villee, and Wallach.

Fourth Year Elective Courses

- 20. Biological Chemistry and Nutrition. An opportunity is offered for special study in advanced biological chemistry and nutrition for one or more months. Arrangement for work may be made by consultation with members of the staff.
- 21. Use of Isotopes in Biological Research. Dr. A. K. Solomon. Investigation not less than one full course. For admission consult Dr. Solomon directly.

BIOLOGICAL CHEMISTRY

Voluntary Courses

- 30. Research. The Department welcomes students who wish to carry on research with a staff member. Consult the Department Head or an appropriate staff member for details.
- 31. Clinical Nutrition. Dr. Stare and Associates. Time to be arranged.

DENTAL MEDICINE

The following course is offered to students in the Medical School:

Voluntary Course

30. Diagnosis of Oral Diseases. Dr. Weisberger and Staff. November and December, Monday through Friday, 10 to 12 a.m. at the Dental Clinic, M.G.H. Open to third and fourth year students. Limited to six students.

DEPARTMENT OF DERMATOLOGY

THOMAS B. FITZPATRICK, M.D., Ph.D., Edward Wigglesworth Professor of Dermatology, and Head of the Department.

MAURICE M. TOLMAN, M.D., Clinical Professor of Dermatology.

IRVIN H. BLANK, Ph.D., Assistant Professor of Dermatology at the Massachusetts General Hospital.

ROBERT D. GRIESEMER, M.D., Assistant Professor of Dermatology at the Massachusetts General Hospital.

RUTH K. FREINKEL, M.D., Associate in Dermatology.

GEORGE SZABO, Ph.D., Associate in Anatomy in the Department of Dermatology.

GEORGE F. WILGRAM, M.D., Ph.D., Associate in Dermatology.

Walter F. Lever, M.D., Lecturer on Dermatology.

JEAN BURNETT, Ph.D., Visiting Lecturer on Dermatology (appointment expires April 30, 1963).

WILLIAM MONTAGNA, Ph.D., Visiting Lecturer on Dermatology.

HOWARD P. BADEN, M.D., Research Associate in Dermatology.

Madhukar A. Pathak, Ph.D., Research Associate in Dermatology. Robert Scheuplein, Ph.D., Research Associate in Dermatology (from October 1, 1962).

John Adams, Jr., M.D., Instructor in Dermatology.

WILLIAM L. CURWEN, M.D., Instructor in Dermatology.

IRWIN M. FREEDBERG, M.D., Instructor in Dermatology.

WILLIAM R. HILL, JR., M.D., Instructor in Dermatology.

PHILIP L. McCarthy, M.D., Instructor in Dermatology.

ROBERT F. TILLEY, M.D., Instructor in Dermatology.

LEROY D. AARONSON, M.D., Assistant in Dermatology.

Joseph Albert, M.D., Assistant in Dermatology.

EARL A. GLICKLICH, M.D., Assistant in Dermatology.

MILTON E. HELMAN, M.D., Assistant in Dermatology.

CHARLES S. KEUPER, M.D., Assistant in Dermatology.

Myron H. Matz, M.D., Assistant in Dermatology.

Samuel L. Moschella, M.D., Assistant in Dermatology.

ARTHUR S. SPANGLER, M.D., Assistant in Dermatology.

Joseph W. Burnett, M.D., Research Fellow in Dermatology.
Arthur Eisen, M.D., Research Fellow in Dermatology.
Burnham E. Lamkins, M.D., Research Fellow in Dermatology.
Richard Masters, M.D., Research Fellow in Dermatology.
Robert B. Scoggins, M.D., Research Fellow in Dermatology.
Roy T. Sims, M.B., B.S., Research Fellow in Dermatology.
Hitoshi Takahashi, M.D., Ph.D., Research Fellow in Dermatology.

SHING Y. YIP, M.D., Research Fellow in Dermatology.

Required Course

DERMATOLOGY A. Third Year. — Instruction consists of four lectures and a clinical clerkship in the dermatology outpatient clinic and dermatology wards of the Massachusetts General Hospital. The course attempts to provide a basic knowledge of the cytology, biochemistry and physiology of normal skin and the pathologic physiology of various diseases involving the skin.

Physical diagnosis (distribution pattern, configuration and morphology of skin lesions) is illustrated with the aid of color transparencies as well as patients. In addition, the student is instructed in the use of some laboratory aids to diagnosis (mycologic examination, dermal pathology, etc.). Emphasis is placed on recognition of skin diseases and cutaneous manifestations of systemic diseases.

THIRD YEAR

HOURS

33

Lectures. Dr. Fitzpatrick and Associates. H.M.S. Four lectures. Section work. Clinical Dermatology. Dr. Fitzpatrick and Associates. M.G.H. Each student attends ten or eleven sessions (clinics and ward rounds) of three hours each.

Fourth Year Elective Course

1. Clinical Clerkship. Dr. FITZPATRICK and Associates. M.G.H. Whole course, all day, or half-course, mornings, with permission of the head of the department. Limited to two students each month.

LEGAL MEDICINE

DEPARTMENT OF LEGAL MEDICINE

RICHARD FORD, M.D., Associate Clinical Professor of Legal Medicine, and Head of the Department.

GEORGE W. CURTIS, M.D., Clinical Associate in Pathology.

MICHAEL A. LUONGO, M.D., Clinical Associate in Legal Medicine.

GEORGE G. KATSAS, M.D., Lecturer on Legal Medicine.

MANUEL A. MERINO, M.D., Visiting Lecturer on Legal Medicine (appointment expired August 31, 1962).

ALFRED L. Moseley, A.M., Research Associate in Legal Medicine.

ROGER P. STOKEY, LL.B., Research Associate in Legal Medicine.

Elvera J. Algeri, S.B., Assistant in Legal Medicine (July 1 through July 31, 1962).

MURRAY BURNSTINE, B.S., Assistant in Legal Medicine.

ARTHUR F. MARCH, JR., S.B., O.D., Assistant in Legal Medicine.

ARTHUR J. McBAY, PH.D., Assistant in Legal Medicine.

MURRAY D. SEGAL, S.B., Assistant in Legal Medicine.

Frank C. Stratton, S.B., Assistant in Legal Medicine.

IAMES C. TUNNY, JR., S.B., Assistant in Legal Medicine.

LOLA M. WALKER, M.A., Assistant in Legal Medicine.

ANGEL S. DESIRELLO, M.D., Research Fellow in Legal Medicine.

EDWIN V. HILL, M.D., Research Fellow in Legal Medicine.

MANUEL A. VILLAUERDE, M.D., Research Fellow in Legal Medicine.

ffiliated:

EONARD ATKINS, M.D., Clinical Associate in Pathology.

ACK R. EWALT, M.D., A.M. (hon.), Bullard Professor of Psychiatry.

Required Course

Third Year. — Twelve lectures. The circumstances in which edical evidence is essential to the administration of justice. Mechisms and pathological characteristics of injuries most frequently

responsible for litigation. Laws and legal principles relating to the practice of medicine and to the physician-patient relationship.

THIRD YEAR

HOURS

Lectures. Dr. Ford and Associates. H.M.S. Twelve Fridays of the first half-year, at 4.15 P.M.

DEPARTMENT OF MEDICINE

- Walter Bauer, M.D., A.M. (hon.), Jackson Professor of Clinical Medicine, and Head of the Department at the Massachusetts General Hospital.
- WILLIAM B. CASTLE, M.D., S.M. (hon.), M.D. (hon.), S.D. (hon.), George Richards Minot Professor of Medicine, and Head of the Department at the Boston City Hospital.
- GEORGE W. THORN, M.D., M.A. (hon.), LL.D. (hon.), Sc.D. (hon.), Dr. of Med. (hon.), Hersey Professor of the Theory and Practice of Physic, and Head of the Department at the Peter Bent Brigham Hospital.
- PAUL C. ZAMECNIK, M.D., Collis P. Huntington Professor of Oncologic Medicine, and Director of the J. Collins Warren Laboratories of the Huntington Memorial Hospital.
- LEWIS DEXTER, M.D., Clinical Professor of Medicine, and Tutor in Medicine.
- MAXWELL FINLAND, M.D., Professor of Medicine.
- LOUIS WOLFF, M.D., Clinical Professor of Medicine.
- BENJAMIN ALEXANDER, M.D., Associate Professor of Medicine at the Beth Israel Hospital.
- EDWARD F. BLAND, M.D., Associate Clinical Professor of Medicine.
- CHARLES S. DAVIDSON, M.D., C.M., A.M. (hon.), Associate Professor of Medicine.
- AURENCE B. ELLIS, M.D., Associate Clinical Professor of Medicine.
- ENDALL EMERSON, Jr., M.D., Associate Clinical Professor of Medicine.
- CUGENE C. EPPINGER, M.D., Associate Clinical Professor of Medicine, and Assistant Dean of the Faculty of Medicine for Courses for Graduates.
- . Stone Freedberg, M.D., Associate Professor of Medicine at the Beth Israel Hospital.

- Frank H. Gardner, M.D., Associate Clinical Professor of Medicine.
- SAMUEL L. GARGILL, M.D., Associate Clinical Professor of Medicine.
- SEYMOUR J. GRAY, M.D., Ph.D., Associate Clinical Professor of Medicine.
- SIDNEY H. INGBAR, M.D., Associate Professor of Medicine.
- ALEXANDER LEAF, M.D., Associate Professor of Medicine at the Massachusetts General Hospital, and Chairman of the Executive Committee of the Departments of Medicine.
- JOHN P. MERRILL, M.D., Associate Clinical Professor of Medicine.
- MARIAN W. ROPES, M.D., Associate Clinical Professor of Medicine.
- JOHN B. STANBURY, M.D., Associate Clinical Professor of Medicine.
- BERT L. VALLEE, M.D., A.M. (hon.), Associate Professor of Medicine.
- THOMAS A. WARTHIN, M.D., Associate Clinical Professor of Medicine.
- Louis Zetzel, M.D., Associate Clinical Professor of Medicine.
- PAUL M. Zoll, M.D., Associate Clinical Professor of Medicine.
- WALTER H. ABELMANN, M.D., Assistant Professor of Medicine.
- ALAN C. AISENBERG, M.D., Ph.D., Assistant Professor of Medicine at the Massachusetts General Hospital.
- MARK D. ALTSCHULE, M.D., Assistant Clinical Professor of Medicine.
- THEODORE L. BADGER, M.D., Assistant Clinical Professor of Medicine.
- Anthony F. Bartholomay, M.A., S.D., Assistant Professor of Mathematical Biology in the Department of Medicine, and Tutor in Mathematical Biology.
- WILLIAM S. BECK, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.
- Frederick S. Bigelow, M.D., Assistant Professor of Medicine.
- GEORGE F. CAHILL, JR., Assistant Professor of Medicine.

MEDICINE

- EARLE M. CHAPMAN, M.D., Assistant Clinical Professor of Medicine.
- HARRY A. DEROW, M.D., Assistant Clinical Professor of Medicine.
- ANNE P. FORBES, M.D., Assistant Clinical Professor of Medicine.
- Norbert Freinkel, M.D., Assistant Professor of Medicine.
- DALE G. FRIEND, M.D., Assistant Professor of Medicine at the Peter Bent Brigham Hospital.
- RICHARD GORLIN, M.D., Assistant Professor of Medicine.
- JEROME GROSS, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.
- MILTON W. HAMOLSKY, M.D., Assistant Professor of Medicine Howard H. HIATT, M.D., Assistant Professor of Medicine.
- Frederic L. Hoch, M.D., Assistant Professor of Medicine, and Tutor in Medical Science.
- DAVID HURWITZ, M.D., Assistant Clinical Professor of Medicine.
- KURT J. ISSELBACHER, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.
- JAMES H. JANDL, M.D., Assistant Professor of Medicine, and Francis Weld Peabody Fellow in Medicine.
- ALFRED KRANES, M.D., Assistant Clinical Professor of Medicine.
- GEORGE S. KURLAND, M.D., Assistant Clinical Professor of Medicine, and Tutor in Medical Science.
- ACOB LERMAN, M.D., Assistant Clinical Professor of Medicine.
- HAROLD D. LEVINE, M.D., Assistant Clinical Professor of Medicine.
- ARTHUR J. LINENTHAL, M.D., Assistant Clinical Professor of Medicine.
- OHN W. LITTLEFIELD, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.
- PAVID LITTMANN, M.D., Assistant Clinical Professor of Medicine.
- OBERT B. LOFTFIELD, Ph.D., Assistant Professor of Organic Chemistry in the Department of Medicine at the Massachusetts General Hospital.
- RANCIS C. LOWELL, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.

- JANET W. McArthur, M.D., Assistant Clinical Professor of Medicine.
- ALEXANDER MARBLE, M.D., Assistant Clinical Professor of Medicine.
- GORDON S. MYERS, M.D., Assistant Clinical Professor of Medicine.
- GEORGE NICHOLS, JR., M.D., Assistant Professor of Medicine at the Peter Bent Brigham Hospital, and Associate Dean of the Faculty of Medicine for Academic Affairs.
- ALBERT E. RENOLD, M.D., Assistant Professor of Medicine (resigned December 31, 1962).
- Joseph E. F. RISEMAN, M.D., Assistant Clinical Professor of Medicine.
- Rudi Schmid, M.D., Ph.D., Assistant Professor of Medicine (resigned September 30, 1962).
- CHARLES L. SHORT, M.D., Assistant Clinical Professor of Medicine.
- LLOYD H. SMITH, JR., M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.
- RICHARD P. STETSON, M.D., Assistant Clinical Professor of Medicine.
- Morton N. Swartz, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.
- PHILIP TROEN, M.D., Assistant Professor of Medicine, and Tutor in Medical Science.
- WARREN E. C. WACKER, M.D., Assistant Professor of Medicine. ARTHUR L. WATKINS, M.D., Assistant Clinical Professor of Medicine.
- STANFORD WESSLER, M.D., Assistant Professor of Medicine at the Beth Israel Hospital.
- HARRIET L. HARDY, M.D., Lecturer on Medicine.
- GEORGE E. ALTMAN, M.D., Clinical Associate in Medicine.
- KARL F. AUSTEN, M.D., Associate in Medicine at the Massachusetts General Hospital.
- C. CABELL BAILEY, M.D., Clinical Associate in Medicine.
- Myles P. Baker, M.D., Clinical Associate in Medicine.
- WILLIAM H. BAKER, M.D., Clinical Associate in Medicine.
- Benjamin M. Banks, M.D., Clinical Associate in Medicine.

MEDICINE

- THEODORE B. BAYLES, M.D., Clinical Associate in Medicine.
- SAMUEL B. BEASER, M.D., Clinical Associate in Medicine.
- RICHARD A. BLOOMFIELD, M.D., Clinical Associate in Medicine.
- NANCY L. R. BUCHER, M.D., Clinical Associate in Medicine.
- PERRY J. CULVER, M.D., Clinical Associate in Medicine, and Assistant Dean of the Faculty of Medicine for Admission.
- ALBERT I. C. DE FRIEZ, M.D., Clinical Associate in Medicine.
- LESLIE J. DEGROOT, M.D., Associate in Medicine at the Massachusetts General Hospital.
- ELLIS DRESNER, M.D., Clinical Associate in Medicine (resigned September 30, 1962).
- DANIEL S. ELLIS, M.D., Clinical Associate in Medicine.
- RICHARD A. FIELD, M.D., Associate in Medicine at the Massachusetts General Hospital.
- Howard S. Frazier, Ph.D., M.D., Associate in Medicine at the Massachusetts General Hospital.
- PAUL FREMONT-SMITH, M.D., Clinical Associate in Medicine.
- Joseph W. Gardella, M.D., Clinical Associate in Medicine, and Associate Dean of the Faculty of Medicine for Student Affairs.
- JOHN G. GIBSON, 2D, M.D., Associate in Medicine at the Peter Bent Brigham Hospital.
- WALTER T. GOODALE, M.D., Clinical Associate in Medicine.
- WARREN R. GUILD, M.D., Associate in Medicine at the Peter Bent Brigham Hospital.
- Frederick T. Hatch, M.D., Associate in Medicine at the Massachusetts General Hospital.
- VICTOR D. HERBERT, M.D., Associate in Medicine, and Tutor in Medical Science.
- ROGER B. HICKLER, M.D., Associate in Medicine.
- RITA M. KELLEY, M.P.H., M.D., Clinical Associate in Medicine.
- Bernard Kliman, M.D., Associate in Medicine at the Massachusetts General Hospital.
- JOHN H. KNOWLES, M.D., Associate in Medicine at the Massachusetts General Hospital.

STEPHEN M. KRANE, M.D., Associate in Medicine at the Massachusetts General Hospital.

CHARLES S. LIEBER, M.D., Associate in Medicine.

DUDLEY MERRILL, M.D., Clinical Associate in Medicine.

ROBERT T. MONROE, M.D., Clinical Associate in Medicine.

Lot B. Page, M.D., Associate in Medicine at the Massachusetts General Hospital.

LIBERTO P. PECHET, M.D., Associate in Medicine at the Beth Israel Hospital.

MAURICE M. PECHET, Ph.D., M.D., Associate in Medicine at the Massachusetts General Hospital.

CURTIS PROUT, M.D., Clinical Associate in Medicine.

HERBERT A. RAVIN, M.D., Associate in Medicine.

KARL SCHMID, Ph.D., Associate in Physical Chemistry in the Department of Medicine at the Massachusetts General Hospital.

Albert O. Seeler, M.D., Clinical Associate in Medicine.

HERBERT A. SELENKOW, M.D., Associate in Medicine at the Peter Bent Brigham Hospital, and Tutor in Medical Science.

WILLIAM J. SHRIBER, M.D., Clinical Associate in Medicine.

SAMUEL STEARNS, M.D., Clinical Associate in Medicine.

J. SYDNEY STILLMAN, JR., M.D., Clinical Associate in Medicine.

JOHN D. STOECKLE, M.D., Associate in Medicine at the Massachusetts General Hospital.

GEORGE P. STURGIS, M.D., Clinical Associate in Medicine.

MELVIN I. STURNICK, M.D., Clinical Associate in Medicine.

JAMES L. TULLIS, M.D., Clinical Associate in Medicine.

ROE E. WELLS, JR., M.D., Associate in Medicine.

NORMAN ZAMCHECK, M.D., Clinical Associate in Medicine.

THOMAS C. CHALMERS, JR., M.D., Lecturer on Medicine.

Joseph F. Dingman, M.D., Lecturer on Medicine.

CLARK W. HEATH, M.D., Lecturer on Medicine.

Giorgio Segre, M.D., Ph.D., Lecturer on Medicine (September 1, 1962 through February 28, 1963).

MAURICE B. STRAUSS, M.D., Lecturer on Medicine.

DAVID W. ALLAN, M.D., Research Associate in Medicine.

SAUL ARONOW, Ph.D., Research Associate in Medicine.

GUY O. BARNETT, M.D., Research Associate in Medicine.

TADEUSZ B. BOJARSKI, Ph.D., Research Associate in Medicine.

THOMAS A. BORGESE, Ph.D., Research Associate in Medicine (resigned August 31, 1962).

GORDON L. BROWNELL, Ph.D., Research Associate in Medicine.

RAFAEL CAMERINI (DAVALOS), M.D., DR.P.H., Research Associate in Medicine.

WILLIAM H. ELLETT, M.S., Research Associate in Medicine.

ARACELI M. ENGEL, Ph.D., Research Associate in Medicine.

Kelichiro Fuwa, Ph.D., Research Associate in Medicine.

RICHARD GREENBAUM, Ph.D., Research Associate in Sociology in the Department of Medicine (from October 1, 1962).

JOHN G. HARTER, M.D., Research Associate in Medicine.

FLORENCE W. HAYNES, Ph.D., Research Associate in Medicine.

Edgar C. Henshaw, M.D., Research Associate in Medicine (from September 1, 1962).

MARIO A. INCHIOSA, JR., Ph.D., Research Associate in Medicine.

BARBARA W. KALCKAR, Ph.D., Research Associate in Bacteriology and Immunology in the Department of Medicine.

SHELBY KASHKET, PH.D., Research Associate in Medicine.

Johan O. Kjellander, M.P.H., M.D., Research Associate in Medicine (from September 1, 1962).

MITSUKO T. LAFORET, M.D., Research Associate in Medicine.

MARVIN R. LAMBORG, PH.D., Research Associate in Medicine.

SAUL MALKIEL, PH.D., Research Associate in Medicine.

DAVID G. NATHAN, M.D., Research Associate in Medicine.

LEONA R. NORMAN, M.D., Research Associate in Medicine.

THOMAS F. O'BRIEN, M.D., Research Associate in Medicine.

PETER OFNER, PH.D., Research Associate in Medicine.

DONALD E. OKEN, M.D., Research Associate in Medicine.

ILLIAN POTHIER, M.D., Research Associate in Medicine (July 1 through September 30, 1962).

TANLEY M. REIMER, Ph.D., Research Associate in Medicine (resigned July 31, 1962).

IARY J. SPIRO, PH.D., Research Associate in Medicine.

Mary L. Stephenson, Ph.D., Research Associate in Medicine. Helena Wong (Shen), M.D., Research Associate in Medicine. Chuan-Tao Yu, Ph.D., Research Associate in Medicine (from November 1, 1962).

AMERICO ABBRUZZESE, M.D., Instructor in Medicine.

IRVING P. ACKERMAN, M.D., Instructor in Medicine.

VICTOR G. BALBONI, M.D., Instructor in Medicine.

EDGAR D. BELL, JR., M.D., Instructor in Medicine.

PATRICIA H. BENEDICT, M.D., Instructor in Medicine.

Daniel S. Bernstein, M.D., Instructor in Medicine.

Kenneth T. Bird, M.D., Instructor in Medicine.

Morton G. Brown, M.D., Instructor in Medicine.

ROBERT E. BROWNLEE, M.D., Instructor in Medicine.

John B. Cadigan, Jr., M.D., Instructor in Medicine.

Edmund J. Callahan, 3rd, M.D., Instructor in Medicine.

WALTER H. CASKEY, M.D., Instructor in Medicine.

John W. Cass, Jr., Ph.D., M.D., Instructor in Medicine.

Phin Cohen, M.D., Instructor in Medicine.

Augustus T. Crocker, M.D., Instructor in Medicine.

SETH C. CROCKER, M.D., Instructor in Medicine.

JAMES F. CUMMINS, M.D., Instructor in Medicine.

Briant L. Decker, M.D., Instructor in Medicine.

Daniel Deykin, M.D., Instructor in Medicine.

ERIC ENGEL, M.D., Instructor in Medicine.

ALVIN Essig, M.D., Instructor in Medicine.

DANIEL D. FEDERMAN, M.D., Instructor in Medicine.

JAMES J. FEENEY, M.D., Instructor in Medicine and Tutor in Medical Science.

JEROME W. FISCHBEIN, M.D., Instructor in Medicine.

GERALD S. FOSTER, M.D., Instructor in Medicine.

WILLIAM FRANKLIN, M.D., Instructor in Medicine.

Andrew G. Frantz, M.D., Instructor in Medicine.

ALLAN L. FRIEDLICH, M.D., Instructor in Medicine.

JOHN R. GRAHAM, M.D., Instructor in Medicine.

MORTIMER S. GREENBERG, M.D., Instructor in Medicine.

Joseph S. Gryboski, M.D., Instructor in Medicine.

MEDICINE

VICTOR GUREWICH, M.D., Instructor in Medicine.

EDWARD B. HAGER, M.D., Instructor in Medicine.

ARTHUR P. HALL, M.D., Instructor in Medicine.

THOMAS C. HALL, M.D., Instructor in Medicine.

REED HARWOOD, M.D., Instructor in Medicine.

Donald M. Haskins, M.D., Instructor in Medicine (resigned July 31, 1962).

MANUEL G. HERRERA-ACENA, M.D., Instructor in Medicine.

ROBERT B. HOLDEN, M.D., Instructor in Medicine.

JAMES H. JACKSON, M.D., Instructor in Medicine.

BERNARD M. JACOBSON, M.D., Instructor in Medicine.

H. WALTER JONES, JR., M.D., Instructor in Medicine.

ROBERT H. JONES, M.D., Instructor in Medicine.

ALAN L. KAITZ, M.D., Instructor in Medicine.

MELVIN I. KLAYMAN, M.D., Instructor in Medicine.

JULIUS KRITZMAN, M.D., Instructor in Medicine.

DAVID P. LAULER, M.D., Instructor in Medicine.

MARK F. LESSES, M.D., Instructor in Medicine.

ARTHUR J. LOCKHART, M.D., Instructor in Medicine.

JASON E. LUCAS, D.M.D., M.D., Instructor in Medicine.

GEORGE W. LYNCH, M.D., Instructor in Medicine.

FARAHE MALOOF, M.D., Instructor in Medicine.

JAMES S. MANSFIELD, M.D., Instructor in Medicine.

EDWIN P. MAYNARD, 3RD, M.D., Instructor in Medicine.

L. TILLMAN McDANIEL, M.D., Instructor in Medicine.

WILLIAM F. McNeely, M.D., Instructor in Medicine.

Joseph M. Miller, M.D., Instructor in Medicine.

JOHN A. MILLS, M.D., Instructor in Medicine.

AVARD M. MITCHELL, PH.D., M.D., Instructor in Medicine.

ROBERT S. MORRISON, M.D., Instructor in Medicine.

HYMAN L. NATERMAN, M.D., Instructor in Medicine.

CAREY M. PETERS, M.D., Instructor in Medicine.

Arthur S. Pier, Jr., M.D., Instructor in Medicine.

GEORGE M. PIKE, M.D., Instructor in Medicine.

WALTER W. POINT, 3RD, M.D., Instructor in Medicine.

SEARLE B. REES, M.D., Instructor in Medicine.

WILLIAM A. RICHARDS, M.D., Instructor in Medicine.

ELLIOT L. SAGALL, M.D., Instructor in Medicine.

WALTER T. St. GOAR, M.D., Instructor in Medicine.

Guillermo C. Sanchez, M.D., Instructor in Medicine.

ARTHUR A. SASAHARA, M.D., Instructor in Medicine.

GORDON A. SAUNDERS, M.D., Instructor in Medicine.

LAWRENCE SAXON, M.D., Instructor in Medicine.

Joseph H. Schaffer, M.D., Instructor in Medicine.

JOHN SCHULMAN, JR., M.D., Instructor in Medicine.

NORMAN J. SELVERSTONE, M.D., Instructor in Medicine.

PHILIP J. SNODGRASS, M.D., Instructor in Medicine, and Henry

A. and Camillus Christian Fellow in Medicine.

Julian G. Snyder, Ph.D., M.D., Instructor in Medicine.

WILLIAM D. SOHIER, JR., M.D., Instructor in Medicine.

NORMAN S. STEARNS, M.D., Instructor in Medicine.

HAROLD J. STEIN, M.D., Instructor in Medicine.

Myron Stein, M.D., Instructor in Medicine.

Samuel W. Stein, M.D., Instructor in Medicine.

LESTER A. STEINBERG, M.D., Instructor in Medicine.

JURGEN STEINKE, M.D., Instructor in Medicine.

LAWRENCE I. STELLAR, M.D., Instructor in Medicine.

ROBERT H. TALKOV, M.D., Instructor in Medicine.

Duncan P. Thomas, M.B., B.S., Instructor in Medicine.

Donald A. Tucker, M.D., Instructor in Medicine.

DAVID D. ULMER, M.D., Instructor in Medicine, and Tutor in Medical Science.

James E. C. Walker, M.D., Instructor in Medicine.

Arnold N. Weinberg, M.D., Instructor in Medicine (from October 1, 1962).

JOHN C. WELLS, JR., M.D., Instructor in Medicine.

EDWIN O. WHEELER, M.D., Instructor in Medicine.

CONGER WILLIAMS, M.D., Instructor in Medicine.

BERTRAM M. WINER, M.D., Instructor in Medicine.

RICHARD WOLFF, M.D., Instructor in Medicine.

SIDNEY ALEXANDER, M.D., Assistant in Medicine.

GEORGE P. BAKER, JR., M.D., Assistant in Medicine.

MEDICINE

WILLIAM H. BIRCHARD, M.D., Assistant in Medicine.

LEWIS E. BRAVERMAN, M.D., Assistant in Medicine.

WILLIAM G. BUSH, M.D., Assistant in Medicine.

ROBERT J. CAREY, M.D., Assistant in Medicine.

MELVIN H. CHALFEN, M.D., Assistant in Medicine.

ROBERT H. CRAIG, M.D., Assistant in Medicine.

ALICE B. CRANDELL, M.D., Assistant in Medicine.

ROMAN W. DESANCTIS, M.D., Assistant in Medicine.

Francis J. Donovan, M.D., Assistant in Medicine (from October 1, 1962).

ROBERT DRUYAN, M.D., Assistant in Medicine.

ROBERT V. FARESE, M.D., Assistant in Medicine (resigned August 31, 1962).

WILLIAM J. FLANIGAN, M.D., Assistant in Medicine.

KENNETH FREMONT-SMITH, M.D., Assistant in Medicine.

HARVEY L. FRITZ, M.D., Assistant in Medicine.

ARTHUR J. GARCEAU, M.D., Assistant in Medicine.

JOEL C. GOLDTHWAIT, M.D., Assistant in Medicine.

KENNETH M. GRAHAM, M.D., Assistant in Medicine.

MICHAEL A. GRAVALLESE, JR., M.D., Assistant in Medicine.

Earle I. Hammer, M.D., Assistant in Medicine.

CLARK W. HEATH, JR., Assistant in Medicine.

Ernest A. Higgins, Jr., Assistant in Medicine.

WILLIAM B. HOOD, JR., M.D., Assistant in Medicine.

Lansing C. Hoskins, M.D., Assistant in Medicine.

JOHN W. KELLER, M.D., Assistant in Medicine.

OLIVER S. LELAND, JR., M.D., Assistant in Medicine.

Albert M. Lerner, M.D., Assistant in Medicine.

Joseph E. Mackie, M.D., Assistant in Medicine.

EDWARD W. MOORE, M.D., Assistant in Medicine.

H. Richard Nesson, M.D., Assistant in Medicine.

HANS B. NEVINNY-STICKEL, M.D., Assistant in Medicine.

CHARLES P. NORTON, M.D., Assistant in Medicine.

AVRUM M. NOVITCH, M.D., Assistant in Medicine.

ROBERT K. OSBORNE, M.D., Assistant in Medicine (from October 1, 1962).

DAVID PAINE, M.D., Assistant in Medicine.

CATHERINE J. PEFFER, M.D., Assistant in Medicine.

BERTRAM PITT, M.D., Assistant in Medicine.

PHILIP J. PORTER, M.D., Assistant in Medicine.

SHOLEM POSTEL, M.D., Assistant in Medicine.

Munro H. Proctor, M.D., Assistant in Medicine.

EDWARD S. RENDALL, M.D., Assistant in Medicine.

ROBERT H. RESNICK, M.D., Assistant in Medicine.

THOMAS J. RYAN, M.D., Assistant in Medicine.

LEON D. SABATH, M.D., Assistant in Medicine.

CHARLES A. SANDERS, M.D., Assistant in Medicine.

ALLAN I. SANDLER, M.D., Assistant in Medicine.

RICHARD P. SCHERMAN, M.D., Assistant in Medicine.

DAVID L. SINGER, M.D., Assistant in Medicine.

LYMAN E. SPROUL, JR., M.D., Assistant in Medicine.

ROBERT M. STANZLER, M.D., Assistant in Medicine.

OSCAR E. STAROBIN, M.D., Assistant in Medicine.

ROBERT C. STEWART, M.D., Assistant in Medicine.

JEREMIEH G. TILLES, M.D., Assistant in Medicine.

TADAAKI ABE, M.D., Research Fellow in Medicine.

LAWRENCE N. ADLER, M.D., Research Fellow in Medicine.

CARMEN ALONSO, Ph.D., Research Fellow in Medicine.

CHESTER A. ALPER, M.D., Research Fellow in Medicine.

ELIAS AMADOR, M.D., Research Fellow in Medicine.

RONALD A. ARKY, M.D., Research Fellow in Medicine.

RICHARD H. ASTER, M.D., Research Fellow in Medicine.

ROGER P. ATWOOD, M.D., Research Fellow in Bacteriology and Immunology in the Department of Medicine.

Peter E. Barry, M.D., Research Fellow in Medicine (from October 1, 1962).

PETER L. BERGQUIST, Ph.D., Research Fellow in Medicine.

Sheldon J. Bleicher, M.D., Research Fellow in Medicine.

JACK BRAUNWALD, M.D., Research Fellow in Medicine.

CHARLES B. CARPENTER, M.D., Research Fellow in Medicine.

Luigi Casella, M.D., Research Fellow in Medicine.

MEDICINE

James D. Cherry, M.D., Research Fellow in Medicine (resigned December 31, 1962).

Ock S. Choi, M.D., Research Fellow in Medicine (resigned October 15, 1962).

ALEXANDER K. COHEN, M.D., Research Fellow in Medicine (from September 1, 1962).

LAWRENCE S. COHEN, M.D., Research Fellow in Medicine.

JOSEPH E. COLEMAN, M.D., Research Fellow in Medicine and Tutor in Medical Science.

John R. Collins, M.D., Research Fellow in Medicine.

PAUL A. CRABBE, M.D., Research Fellow in Medicine.

WILLY C. J. DE LOECKER, M.D., Research Fellow in Medicine (appointment expired September 30, 1962).

Montserrat de Miquel, Ph.D., Research Fellow in Medicine.

Adele Di Girolamo, Ph.D., Research Fellow in Medicine.

DAVID L. DI PIETRO, Ph.D., Research Fellow in Medicine (resigned August 31, 1962).

DAVID E. DRUM, M.D., Research Fellow in Medicine (from August 1, 1962).

HAROLD B. DULL, M.D., Research Fellow in Medicine.

Laurence E. Earley, M.D., Research Fellow in Medicine and Tutor in Medical Science.

THEODORE C. EICKHOFF, M.D., Research Fellow in Medicine.

WILLIAM C. ELLIOTT, M.D., Research Fellow in Medicine.

Sніа H. Elson, M.D., Research Fellow in Medicine.

Ernest E. Federici, M.D., Research Fellow in Medicine (resigned August 31, 1962).

DAVID S. FEINGOLD, M.D., Research Fellow in Medicine.

Joseph M. St.F. Flanagan, M.B., Ch.B., Research Fellow in Medicine.

GEORGE FOSTIROPOULOS, M.D., Research Fellow in Medicine.

REINHARD FRICKE, M.D., Research Fellow in Medicine.

ROBERT E. FUISZ, M.D., Research Fellow in Medicine.

Гномая G. Gabuzda, M.D., Research Fellow in Medicine.

WILLARD S. GAMBLE, M.D., Research Fellow in Medicine.

ANTONIO M. GARCIA, M.D., Research Fellow in Medicine.

KERSTIN G. C. GEZELIUS, Ph.D., Research Fellow in Medicine. CARLOS E. GOLDSTEIN, M.D., Research Fellow in Medicine.

ALAIN GONET, M.D., Research Fellow in Medicine (September 1 through December 31, 1962).

ALLAN D. GOODMAN, M.D., Research Fellow in Medicine.

MEHRAN GOULIAN, M.D., Research Fellow in Medicine.

NORTON J. GREENBERGER, M.D., Research Fellow in Medicine. CHARLES D. GURI, M.D., Research Fellow in Medicine (from October 1, 1962).

HERBERT A. HAESSLER, M.D., Research Fellow in Medicine (resigned December 31, 1962).

LEE W. HENDERSON, M.D., Research Fellow in Medicine.

Donald E. Holdsworth, M.D., Research Fellow in Medicine (from October 1, 1962).

Chuzo Iida, Ph.D., Research Fellow in Medicine (from November 1, 1962).

Jun Ishii, M.D., Research Fellow in Medicine.

HARRY S. JACOB, M.D., Research Fellow in Medicine.

JØRGEN G. JACOBSEN, M.D., Research Fellow in Medicine.

Homi F. Jeejeebhoy, M.B., B.S., Research Fellow in Medicine.

Don P. Jones, M.D., Research Fellow in Medicine.

WILLIS R. KEENE, M.D., Research Fellow in Medicine.

RAJA N. KHURI, M.D., Research Fellow in Medicine.

JEROME O. KLEIN, M.D., Research Fellow in Medicine.

ROBERT A. KREISBERG, M.D., Research Fellow in Medicine.

ARTHUR S. KUNIN, M.D., Research Fellow in Medicine.

CHARLES M. LAPIERE, M.D., Research Fellow in Medicine.

ROGER LESTER, M.D., Research Fellow in Medicine (resigned October 31, 1962).

TING-KAI LI, M.D., Research Fellow in Medicine.

NORMAN S. LICHTENSTEIN, M.D., Research Fellow in Medicine.

Monty S. Losowsky, M.B., Ch.B., Research Fellow in Medicine (resigned September 30, 1962).

TECLA O. LOVINA, M.D., Research Fellow in Medicine (resigned November 30, 1962).

KILMER S. McCully, M.D., Research Fellow in Medicine.

- ROBERT H. McKay, Ph.D., Research Fellow in Medicine.
- LEONARD A. MOROZ, M.D., Research Fellow in Medicine.
- JAMES F. MOWBRAY, M.B., Ch.B., Research Fellow in Medicine (from October 1, 1962).
- TROELS MUNKNER, M.B., CH.B., Research Fellow in Medicine (appointment expired August 31, 1962).
- YUTAKA NAGAI, Ph.D., Research Fellow in Medicine.
- CHARLES A. NAGANT DE DEUXCHAISNES, M.D., Research Fellow in Medicine.
- SHIGENOBU NAGATAKI, M.D., Research Fellow in Medicine.
- RENATO PALMA, M.D., Research Fellow in Medicine (appointment expired December 31, 1962).
- Edward J. Parker-Williams, M.D., Research Fellow in Medicine (from September 1, 1962).
- THOMAS E. PIEMME, M.D., Research Fellow in Medicine.
- ROBERT S. PINALS, M.D., Research Fellow in Medicine.
- Aldo Pinchera, M.D., Research Fellow in Medicine (from September 15, 1962)
- MARC R. PLAYOUST, M.B., B.S., Research Fellow in Medicine (from October 1, 1962).
- GERALD R. PLOTKIN, M.D., Research Fellow in Medicine.
- PABLO PULIDO, M.D., Research Fellow in Medicine.
- ALI A. Pur-Shahriari, M.D., Research Fellow in Medicine.
- ERIKA E. RANDERATH, DIPL. CHEM., Research Fellow in Medicine (from February 1, 1963).
- KURT RANDERATH, DR. MED., Research Fellow in Medicine (from February 1, 1963).
- DAVID P. REED, M.D., Research Fellow in Medicine.
- VISHRAM B. REGE, M.D., Research Fellow in Medicine (from September 1, 1962).
- LISTAIR G. C. RENWICK, M.B., CH.B., Research Fellow in Medicine (from September 1, 1962).
- AMES F. RIORDAN, Ph.D., Research Fellow in Medicine.
- ACK R. RISHIKOF, M.D., Research Fellow in Medicine.
- LLIS L. ROLETT, M.D., Research Fellow in Medicine.
- forton K. Rubinstein, M.D., Research Fellow in Medicine.

LEWIS SASSE, M.D., Research Fellow in Medicine.

MEI SATAKE, M.D., Ph.D., Research Fellow in Medicine.

ROBERT H. SCHAPIRO, M.D., Research Fellow in Medicine (appointment expired December 31, 1962).

ROBERT L. SCHEIG, M.D., Research Fellow in Medicine.

STEVEN SCHENKER, M.D., Research Fellow in Medicine.

EUGENE SCHUPAK, M.D., Research Fellow in Medicine.

GEORGE C. SCHUSSLER, M.D., Research Fellow in Medicine.

PETER C. SCRIBA, DR.MED., Research Fellow in Medicine.

Yoshitaka Shimizu, M.D., Research Fellow in Medicine.

JEREMIAH E. SILBERT, M.D., Research Fellow in Medicine.

MICHAEL L. SIMENHOFF, M.B., CH.B., Research Fellow in Medicine.

GIRIRAJ B. SINGH, M.D., Research Fellow in Medicine (from September 1, 1962).

JOHN S. SOELDNER, M.D., Research Fellow in Medicine.

GEORGE STEINER, M.D., Research Fellow in Medicine.

KATHLEEN STRATTON, Ph.D., Research Fellow in Medicine.

MASAYA SUGIURA, M.D., Research Fellow in Medicine.

Louis W. Sullivan, M.D., Research Fellow in Medicine.

EMILIO R. TAFUR, M.D., Research Fellow in Medicine.

FRANK J. TAKACS, M.D., Research Fellow in Medicine.

SHIZUKU TAKAHASHI, M.D., Research Fellow in Medicine.

GENZO TANABE, M.D., Research Fellow in Medicine.

Катиніко Токіта, M.D., Ph.D., Research Fellow in Medicine.

Kanji Torizuka, M.D., Research Fellow in Medicine (from September 1, 1962).

Gentaro Usuku, M.D., Research Fellow in Medicine (from September 1, 1962).

Anthony I. Vagnucci, M.D., Research Fellow in Medicine.

WEIERT M. VELLE, D.M.V., Research Fellow in Medicine (resigned September 30, 1962).

JEAN P. VON WARTBURG, M.D., Research Fellow in Medicine. CHARLES H. WEINGARTEN, M.D., Research Fellow in Medicine. JOHN RICHARD WILLIAMSON, M.D., Research Fellow in Medicine JOSEPH R. WILLIAMSON, M.D., Research Fellow in Medicine.

MEDICINE

KENNETH A. WOEBER, M.B., CH.B., Research Fellow in Medicine.

JOHN F. WOODS, M.B., CH.B., Research Fellow in Medicine.

KIYOTAKA YAMANA, Ph.D., Research Fellow in Medicine.

NICHOLAS A. YANKOPOULOS, M.D., Research Fellow in Medicine.

CHUAN-TAO YU, Ph.D., Research Fellow in Medicine (July 1 through October 31, 1962).

PETER M. YURCHAK, M.D., Research Fellow in Medicine.

RALPH S. ZITNIK, M.D., Research Fellow in Medicine.

KLAUS A. ZUPPINGER, M.D., Research Fellow in Medicine.

Julian M. Aroestry, M.D., Teaching Fellow in Medicine.

MARTIN A. GOLDMAN, M.D., Teaching Fellow in Medicine.

JOHN W. HARTHORNE, M.D., Teaching Fellow in Medicine.

CHARLES S. HOLLANDER, M.D., Teaching Fellow in Medicine.

LORE G. HOPFF, M.D., Teaching Fellow in Medicine.

Andrew Huvos, M.D., Teaching Fellow in Medicine.

GABRIEL T. KOROXENIDIS, M.D., Teaching Fellow in Medicine.

MITCHELL T. RABKIN, M.D., Teaching Fellow in Medicine (appointment expired December 31, 1962).

HOWARD S. RICHTER, M.D., Teaching Fellow in Medicine.

ROGER H. SWEET, M.D., Teaching Fellow in Medicine.

JACK TATIROSIAN, M.D., Teaching Fellow in Medicine.

GUILLERMO URRUTIA, M.D., Teaching Fellow in Medicine.

Affiliated:

NEIL L. CRONE, M.D., Professor of Business Administration, and Director of the Business School Health Service.

Dana L. Farnsworth, M.D., Henry K. Oliver Professor of Hygiene, and Director of University Health Services.

HERMAN M. KALCKAR, M.D., Ph.D., Professor of Biological Chemistry at the Massachusetts General Hospital.

Lewis, L. Engel, Ph.D., Associate Professor of Biological Chemistry, and Permanent Faculty Fellow of the American Cancer Society.

ROGER W. JEANLOZ, Ph.D., Associate Professor of Biological Chemistry at the Massachusetts General Hospital.

Edward H. Kass, Ph.D., M.D., Associate Professor of Bacteriology and Immunology.

- Benedict F. Massell, M.D., Assistant Clinical Professor of Pediatrics.
- SIDNEY V. RIEDER, Ph.D., Assistant Professor of Biological Chemistry at the Massachusetts General Hospital.
- JESSE F. Scott, M.D., Assistant Professor of Anatomy.
- Edgar B. Taft, M.D., Assistant Professor of Pathology at the Massachusetts General Hospital.
- SIDNEY LESKOWITZ, Ph.D., Assistant Professor of Bacteriology and Immunology at the Massachusetts General Hospital.
- W. RICHARD BURACK, M.D., Associate in Pharmacology, and Tutor in Medical Science.
- Donald G. Comb, M.D., Associate in Biological Chemistry at the Massachusetts General Hospital.
- Annette M. C. Rapin, Ph.D., Research Associate in Biological Chemistry.
- WILLIAM J. REDDY, D.Sc., Research Associate in Biological Chemistry.
- STANLEY J. ADELSTEIN, M.D., Philip H. Cook Fellow in Radiology, and Associate in Anatomy.
- HAROLD M. FLOWERS, Ph.D., Research Fellow in Biological Chemistry.
- Anund Hallen, M.D., Research Fellow in Biological Chemistry. Lauri D. Thrupp, M.D., Research Fellow in Bacteriology and Immunology.

Required Courses

The time given to the Department of Medicine begins for the entire class in the second half of the second year and continues thereafter so that each student spends about a third of his third year and more than a quarter of his fourth year in the study of medicine, including the medical specialties in the Departments of Neurology, Psychiatry, and Dermatology. The instruction given by the Department of Medicine is by means of lectures, amphitheatre clinics, laboratory exercises and practical work in out-patient departments and wards. Throughout, an effort is made to correlate the clinical aspects of patients with fundamental biologic principles and to establish in the student's mind the importance of care and precision in diagnostic

MEDICINE

and therapeutic methods as best applied to fellow human beings living in a complex industrial society.

MEDICINE A. Second Year. — During the second half of the second year, the Department of Medicine in cooperation with the Departments of Pathology, Pharmacology, Surgery and others participates in the teaching of pathologic physiology. This course provides an integrated approach to understanding the basic principles of disease and includes intensive instruction in laboratory methods. Accompanying the instruction in pathologic physiology, a course is given in the study of the patient by history taking and physical examination. For this instruction, the students are divided into small groups and assigned to the four general hospitals.

MEDICINE B. Third Year. — Throughout the third year the subjects of internal medicine are covered by clinics or lectures for the whole class, which are given at the various hospitals or at the Harvard Medical School. For their practical instruction the students are divided into small groups and work in the medical wards or outpatient departments of the four general hospitals connected with the Medical School. On Monday and Wednesday afternoons the third of the class assigned to Medicine attends amphitheatre clinics, and X-ray conferences in rotation at the various hospitals or does assigned reading or clinical work. One week of the course is spent at the Middlesex County Sanatorium for special instruction in tuberculosis and other chest diseases.

MEDICINE C. Fourth Year. — In this year for two or three months the students serve mainly as clinical clerks in the medical wards of a general hospital. Part of their time, however, is devoted to acting as assistants in the medical clinic of the out-patient department. Especial emphasis is placed upon the care of the patient as an individual with respect to diagnosis and treatment. With individual variations in the different hospitals, conferences are held for the informal discussion of clinical, pathological, immunological, radiological, social or dietetic problems of selected cases.

Facilities for Instruction

The instruction is given at the Medical School, the Beth Israel Hospital, the Boston City Hospital, the Massachusetts General Hosard and the Peter Bent Brigham Hospital, as well as in several other

hospitals devoted to special purposes. In these hospitals abundant and varied clinical material is available for the conduct of numerous exercises.

SECOND YEAR

HOURS

Pathologic physiology, including lectures and laboratory exercises. Dr. Freiman (Department of Pathology), Chairman, and Drs. Isselbacher, Jandl and other members of the Department of Medicine together with members of the Departments of Pathology, Pharmacology, Surgery, Obstetrics and Gynecology, Pediatrics, Neurology and Psychiatry, Radiology, and Tropical Public Health.

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Introductory medicine, including lectures and clinical experience. Dr. Chapman (Chairman) and coordinators at the participating hospitals: Dr. Winer at the B.I.H.; Dr. Jandl at the B.C.H.; Dr. Knowles at the M.G.H.; and Dr. Friend at the P.B.B.H.

Together, these two courses occupy eight half-days per week during the second semester.

THIRD YEAR

Lectures, recitations, and clinics on selected topics in internal medicine. Drs. Alexander, Bauer, Castle, Thorn and Associates. Throughout the year.

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Exercises in sections are held in the wards and out-patient departments at the general hospitals connected with the Medical School. The coordinator of this instruction is Dr. Davidson. Directly in charge at the B.I.H. is Dr. Linenthal; at the B.C.H., Dr. Abelmann; at the M.G.H., Dr. Smith; and at the P.B.B.H., Dr. Merrill. Each section has thirty-two exercises of three hours each and twenty-one exercises of two hours each.

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FOURTH YEAR

Clinical Clerkships at M.G.H. (Medicine C1, Dr. BAUER and Associates); B.C.H. (Medicine C2, Drs. Castle, Davidson and Associates); P.B.B.H. (Medicine C3, Dr. Thorn and

Associates); B.I.H. (Medicine C4, Drs. Alexander, Freedberg and Associates). 288

Elective and Voluntary Courses

In addition to the required courses for fourth year students, the Department offers several opportunities for specially qualified students to take advanced elective courses, and arrangements must be made in advance with the head of the hospital department. Qualified students in their second or third years in free afternoons or in their fourth year during additional months may attend voluntary courses or carry on research problems in internal medicine by arrangements with individual instructors approved by the head of the hospital department.

Fourth Year Elective Courses

- 5. Advanced Medicine. Drs. Bauer, Beck, Bird, Bland, Isselbacher, Knowles, Leaf, Smith, Stanbury, Watkins and Associates. M.G.H.
- 6. Advanced Medicine. Drs. Castle, Badger, Bigelow, Davidson, Ellis, Finland, Hurwitz, Ingbar, Kass, Schmid and Associates. B.C.H.
- 7. Advanced Medicine. Drs. Thorn, Dexter, Gardner, Gorlin, Gray, Levine, Merrill, Tyler, Vallee, Wacker, Wells and Associates. P.B.B.H.
- 8. Advanced Medicine. Drs. Alexander, Freedberg, Hiatt, Kurland, Troen, Wessler, Zoll and Associates. B.I.H.
- 9. Advanced Medicine. Drs. Warthin, Littmann and Associates. W.R.V.A.H.
- 10. Advanced Medicine. Dr. CHALMERS and ASSOCIATES. L.S.H.
- 11. Diabetes. Drs. Marble, Cahill and Associates. N.E.D.H.
- 12. Neoplastic Disease. Drs. Zamecnik, Castleman, Robbins, Russell, C. S. Richardson and Associates. M.G.H.
- 13. Physical Medicine and Rehabilitation. Dr. WATKINS. M.G.H.
- 14. Diseases of the Lungs. Dr. Badger and Associates. M.G.H., B.C.H., P.B.B.H., and C.H.M.C. Will not be offered in 1961-62.
- 15. Comprehensive Medical Care. Drs. Farnsworth, Prout and Associates. University Health Services of Harvard University and Radcliffe College.

Voluntary Courses

31. Clinics on Digestive Diseases. B.I.H. Drs. Banks, Zetzel and Associates. Thursdays, 2:00–4:00 p.m., February and March. Open to third year students.

37. Diagnosis and Treatment of Heart Disease. B.I.H. Drs. RISEMAN, ALTSCHULE and SAGALL. Tuesdays, 2:00-4:00 p.m., February and

March. Open to third year students.

38. Diagnosis and Treatment of Diabetes Mellitus. B.I.H. Drs. Beaser and Stearns. Tuesdays and Thursdays, 2:00-3:30 p.m., October. Open to third year students.

39. Electrocardiography. P.B.B.H., Dr. H. D. Levine. Will not be

offered in 1962-63.

- 43. Diabetes Mellitus. N.E.D.H. Drs. Marble, Cahill and Associates. Tuesdays and Thursdays, 2:00–3:30 p.m., April. Open to second, third, and fourth year students.
- 44. Seminars on the Biology and Biochemistry of Disease. M.G.H. Drs. J. Gross, R. B. Cohen, K. J. Isselbacher, B. H. Waksman, other staff members and outside speakers. Tentative time will be Tuesdays in February and March. Two-hour seminar for eight weeks. Open to second, third, and fourth year students. For further information contact Dr. Gross.
- 45. Endocrinology. B.I.H. Drs. Hamolsky, Hiatt, and Troen. Tuesdays, 2:00–3:30 p.m., December and January. Open to third year students. Course given if 15 or more students apply.

46. Family Medicine. See Pediatrics 31.

DEPARTMENT OF NEUROLOGY AND PSYCHIATRY

- RAYMOND D. ADAMS, M.D., A.M. (hon.), Bullard Professor of Neuropathology, and Head of the Department of Neurology at the Massachusetts General Hospital.
- DEREK E. DENNY-BROWN, DR. PHIL., M.D., A.M. (hon.), James Jackson Putnam Professor of Neurology, Head of the Department at the Boston City Hospital, and Chairman of the Executive Committee of the Departments of Neurology and Psychiatry.
- JACK R. EWALT, M.D., A.M. (hon.), Bullard Professor of Psychiatry, and Head of the Department at the Massachusetts Mental Health Center.
- ERICH LINDEMANN, Ph.D., M.D., A.M. (hon.), Professor of Psychiatry, and Head of the Department at the Massachusetts General Hospital.
- GRETE L. BIBRING, M.D., Clinical Professor of Psychiatry.
- PETER B. DEWS, Ph.D., A.M. (hon.), Stanley Cobb Professor of Psychiatry and Psychobiology.
- George E. Gardner, Ph.D., M.D., Clinical Professor of Psychiatry.
- IVES HENDRICK, M.D., Clinical Professor of Psychiatry.
- ELVIN V. SEMRAD, M.D., Clinical Professor of Psychiatry.
- LUTFU L. UZMAN, M.D., Bronson Crothers Professor of Neurology (died November 7, 1962).
- HENRY M. Fox, M.D., Associate Clinical Professor of Psychiatry.
- MILTON GREENBLATT, M.D., Associate Clinical Professor of Psychiatry.
- Alfred Pope, M.D., Associate Professor of Neuropathology at the McLean Hospital.
- ROBERT S. SCHWAB, M.D., Associate Clinical Professor of Neurology.
- PHILIP SOLOMON, M.D., Associate Clinical Professor of Psychiatry.
- JOHN P. SPIEGEL, M.D., Associate Clinical Professor of Psychiatry.

ALFRED H. STANTON, M.D., A.M. (hon.), Associate Professor of Psychiatry at the McLean Hospital.

HENRY H. BREWSTER, M.D., Assistant Clinical Professor of Psy-

chiatry (from October 1, 1962).

PHILIP R. Dodge, M.D., Assistant Professor of Neurology at the Massachusetts General Hospital.

THOMAS F. DWYER, M.D., Assistant Clinical Professor of Psychiatry.

Frank R. Ervin, M.D., Assistant Professor of Psychiatry at the Massachusetts General Hospital.

CHARLES M. FISHER, M.D., Assistant Clinical Professor of Neurology.

Daniel H. Funkenstein, M.D., Assistant Professor of Psychiatry.

SANFORD R. GIFFORD, JR., M.D., Assistant Clinical Professor of Psychiatry.

Daniel J. Levinson, Ph.D., Assistant Professor of Psychology in the Department of Psychiatry.

EDWARD P. RICHARDSON, JR., M.D., Assistant Professor of Neuro-pathology at the Massachusetts General Hospital.

JAMES D. ROBERTSON, M.D., Assistant Professor of Neuropathology at the McLean Hospital.

Gregory Rochlin, M.D., Assistant Clinical Professor of Psychiatry.

Murray Sidman, Ph.D., Assistant Professor of Psychology in the Department of Neurology at the Massachusetts General Hospital.

RICHARD L. SIDMAN, M.D., Assistant Professor of Neuropathology.

Samuel Silverman, M.D., Assistant Clinical Professor of Psychiatry.

GEORGE A. TALLAND, Ph.D., Assistant Professor of Psychology in the Department of Psychiatry.

WILLIAM H. TIMBERLAKE, M.D., Assistant Clinical Professor of Neurology.

MAURICE VICTOR, M.D., Assistant Clinical Professor of Neurology (resigned November 30, 1962).

AVERY D. WEISMAN, M.D., Assistant Clinical Professor of Psychiatry.

ELIZABETH R. ZETZEL, M.D., Assistant Clinical Professor of Psychiatry.

Francis J. Braceland, M.D., Lecturer on Psychiatry.

Erik H. Erikson, Lecturer on Psychiatry.

HAROLD S. ALBERT, M.D., C.M., Clinical Associate in Psychiatry.

Betty Q. Banker, M.D., Associate in Neuropathology at The Children's Hospital (resigned November 30, 1962).

Samuel Bojar, M.D., Clinical Associate in Psychiatry.

Morris E. Chafetz, M.D., Clinical Associate in Psychiatry.

EDWIN M. COLE, M.D., Clinical Associate in Neurology.

GAYLORD P. COON, M.D., Clinical Associate in Psychiatry.

LYDIA G. DAWES, M.D., Clinical Associate in Psychiatry.

Frank C. d'Elseaux, M.D., Clinical Associate in Psychiatry.

Pierre M. Dreyfus, M.D., Associate in Neurology at the Massachusetts General Hospital.

Stanley H. Eldred, M.D., Associate in Psychiatry at the McLean Hospital.

Samuel H. Epstein, M.D., Clinical Associate in Neurology.

Lester L. Hasenbush, M.D., Clinical Associate in Psychiatry.

Leston L. Havens, M.D., Associate in Psychiatry.

PAUL M. HOWARD, M.D., Clinical Associate in Psychiatry.

Harry L. Kozol, M.D., Clinical Associate in Neurology.

P. Herbert Leiderman, M.D., Associate in Psychiatry.

OGDEN R. LINDSLEY, PH.D., Associate in Psychology in the Department of Psychiatry.

SIMEON LOCKE, M.D., Associate in Neurology (from January 1, 1963).

CESARE T. LOMBROSA, M.D., Clinical Associate in Neurology (from September 1, 1962).

ALFRED O. LUDWIG, M.D., Clinical Associate in Psychiatry.

ELIZABETH S. MAKKAY, M.D., Associate in Psychiatry at The Children's Hospital.

Robert H. McCarter, M.D., Clinical Associate in Psychiatry.

JACK H. MENDELSON, M.D., Associate in Psychiatry at the Massachusetts General Hospital.

Doris Menzer-Benaron, M.D., Clinical Associate in Psychiatry. Joseph J. Michaels, M.D., Clinical Associate in Psychiatry.

Elliot G. Mishler, Ph.D., Clinical Associate in Psychology in the Department of Psychiatry.

WILLIAM F. MURPHY, Ph.B., M.D., Clinical Associate in Psychiatry.

CECIL MUSHATT, M.D., Clinical Associate in Psychiatry.

DAVID J. MYERSON, M.D., Clinical Associate in Psychiatry.

JOHN C. NEMIAH, M.D., Associate in Psychiatry and Tutor in Psychiatry.

MARTIN T. ORNE, M.D., Associate in Psychiatry.

GARDNER C. QUARTON, M.D., Associate in Psychiatry at the Massachusetts General Hospital.

Benjamin C. Riggs, M.D., Clinical Associate in Psychiatry.

FLAVIU C. A. ROMANUL, M.D., Associate in Neurology.

JUDY F. ROSENBLITH, Ph.D., Associate in Psychology in the Department of Psychiatry at the Massachusetts General Hospital.

PETER E. SIFNEOS, M.D., Associate in Psychiatry at the Massachusetts General Hospital.

CHRISTOPHER T. STANDISH, M.D., Clinical Associate in Psychiatry.

LAURENCE D. TREVETT, M.D., Clinical Associate in Psychiatry.

H. RICHARD TYLER, M.D., Associate in Neurology.

ARTHUR F. VALENSTEIN, M.D., Clinical Associate in Psychiatry.

HENRY WERMER, M.D., Clinical Associate in Psychiatry.

Donald Wexler, M.D., Clinical Associate in Psychiatry.

PETER H. WOLFF, M.D., Associate in Psychiatry at The Children's Hospital.

Louis S. Chase, M.D., Lecturer on Psychiatry.

EVEOLEEN N. REXFORD, M.D., Lecturer on Psychiatry.

KEITH B. AKINS, M.D., Research Associate in Psychiatry.

JOHN S. BARLOW, M.D., Research Associate in Neurology.

NORMAN W. Bell, Ph.D., Research Associate in Sociology in the Department of Psychiatry.

- Howard T. Blane, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- AYDIN CANKARDAS-WYSOCKI, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- Rose L. Coser, Ph.D., Research Associate in Sociology in the Department of Psychiatry.
- GERALD E. CUBELLI, M.S., Research Associate in Psychiatry (from October 1, 1962).
- John M. von Felsinger, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- MIRIAM F. FIEDLER, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- MARC A. FRIED, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- GEORGE GROSSER, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- DAVID L. GUTMANN, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- ROBERT H. HARRISON, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- HELEN H. HESS, M.D., Research Associate in Neuropathology.
- Douglas F. Hooper, Ph.D., Research Associate in Psychology in the Department of Psychiatry (from October 1, 1962).
- DOROTHY S. HUNTINGTON, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- Donald C. Klein, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- PHILIP E. KUBZANSKY, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- MARJORIE B. LEES, Ph.D, Research Associate in Neuropathology (appointment expired September 30, 1962).
- GLORIA F. LEIDERMAN, Ph.D., Research Associate in Psychology in the Department of Psychiatry.
- Eric H. Lenneberg, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

NANCY K. MELLO, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

Benjamin J. Murawski, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

Asenath Petrie, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

IRENE R. PIERCE, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

Joseph C. Rheingold, Ph.D., Research Associate in Psychiatry.

MARGARET R. RICH, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

Sheldon R. Roen, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

GEORGE C. ROSENWALD, Ph.D., Research Associate in Psychiatry (from September 1, 1962).

Ascanio M. Rossi, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

EDWARD J. RYAN, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

Joseph M. Segarra, M.D., Research Associate in Neurology.

David Shapiro, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

Lewis J. Sherman, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

Ronald E. Shor, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

WILLIAM F. SOSKIN, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

KATHERINE SPENCER, Ph.D., Research Associate in Social Anthropology in the Department of Psychiatry.

Mark Spivak, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

ABRAHAM TOWBIN, M.D., Research Associate in Neuropathology (from August 1, 1962).

NANCY E. WAXLER, Ph.D., Research Associate in Psychology in the Department of Psychiatry (from September 1, 1962).

HENRY WECHSLER, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

JUSTIN L. WEISS, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

JOHN A. ABBOTT, M.D., Instructor in Neurology (appointment expired July 15, 1962).

JASON A. ARONSON, M.D., Instructor in Psychiatry.

Myer Asekoff, M.D., Instructor in Psychiatry.

HERBERT BARRY, JR., Ph.D., M.D., Instructor in Psychiatry.

TULLY BENARON, M.D., Instructor in Psychiatry.

CLEMENS E. BENDA, M.D., Instructor in Psychiatry.

MARTIN A. BEREZIN, M.D., Instructor in Psychiatry.

NORMAN R. BERNSTEIN, M.D., Instructor in Psychiatry.

JOHN R. BLITZER, M.D., Instructor in Psychiatry.

Frances J. Bonner, M.D., Instructor in Psychiatry.

Benjamin B. Brussel, M.D., Instructor in Psychiatry.

MARGARET BULLOWA, M.D., Instructor in Psychiatry.

Mandel E. Cohen, M.D., Instructor in Neurology.

RAQUEL E. COHEN, M.P.H., M.D., Instructor in Psychiatry.

EDWARD M. DANIELS, M.D., Instructor in Psychiatry.

GERALD E. DAVIDSON, M.D., Instructor in Psychiatry.

DANIEL C. DAWES, M.D., Instructor in Psychiatry.

Max Day, M.D., Instructor in Psychiatry.

Francis L. A. de Marneffe, M.B., B.S., Instructor in Psychiatry.

Frederick J. Duhl, M.D., Instructor in Psychiatry.

ALBERT C. ENGLAND, JR., M.D., Instructor in Neurology.

ABRAHAM FINESINGER, Ph.D., M.D., Instructor in Psychiatry.

Donald S. Gair, M.D., Instructor in Psychiatry.

PHILLIP H. GATES, M.D., Instructor in Psychiatry.

BENJAMIN F. GILL, M.D., Instructor in Psychiatry.

FLOYD H. GILLES, M.D., Instructor in Neurology (from September 1, 1962).

Erik Glud, M.D., Instructor in Psychiatry.

MAX GOLDMAN, M.D., Instructor in Neurology.

GERTRUDE R. GREENBLATT, M.D., Instructor in Psychiatry.

LESTER GRINSPOON, M.D., Instructor in Psychiatry.

HENRY U. GRUNEBAUM, M.D., Instructor in Psychiatry (from September 1, 1962).

THOMAS P. HACKETT, M.D., Instructor in Psychiatry.

HELEN M. HERZAN, M.D., Instructor in Psychiatry.

RICHMOND HOLDER, M.D., Instructor in Psychiatry.

ROBERT W. HYDE, M.D., Instructor in Psychiatry.

RALPH J. KAHANA, M.D., Instructor in Psychiatry.

MERTON J. KAHNE, M.D., Instructor in Psychiatry.

CHARLES A. KANE, M.D., Instructor in Neurology.

STANLEY S. KANTER, M.D., Instructor in Psychiatry.

SAMUEL KAPLAN, M.D., Instructor in Psychiatry.

GERALD L. KLERMAN, M.D., Instructor in Psychiatry.

EDMUND N. KUDARAUSKAS, M.D., Instructor in Psychiatry.

JOHN H. LAMONT, M.D., Instructor in Psychiatry.

SIDNEY LEVIN, M.D., Instructor in Psychiatry.

Bernard Levine, Ph.D., Instructor in Psychology in the Department of Psychiatry.

Simeon Locke, M.D., Instructor in Neurology (from July 1 through December 31, 1962).

MARIA LORENZ, M.D., Instructor in Psychiatry.

WALTER MANN, Ph.D., M.D., Instructor in Psychiatry.

RICHARD F. MAYER, M.D., Instructor in Neurology.

WILLIAM F. McLAUGHLIN, M.D., C.M., Instructor in Psychiatry.

Murray Melbin, Ph.D., Instructor in Social Psychology in the Department of Psychiatry.

HALIM MITRY, M.B., CH.B., Instructor in Psychiatry.

ARNOLD H. MODELL, M.D., Instructor in Psychiatry.

SAMUEL L. MOGUL, M.D., Instructor in Psychiatry.

THOMAS A. MORRIS, JR., M.D., Instructor in Psychiatry.

Hugo W. Moser, M.D., Instructor in Neurology.

LEONARD D. OSLER, M.B., CH.B., Instructor in Neurology.

Donald H. Osterberg, M.D., Instructor in Neurology.

Ann Parsons, Ph.D., Instructor in Social Anthropology in the Department of Psychiatry.

NORMAN L. PAUL, M.D., Instructor in Psychiatry.

EDMUND C. PAYNE, JR., M.D., Instructor in Psychiatry.

RICHARD R. PEEBLES, Ph.D., Instructor in Psychology in the Department of Psychiatry.

VINCENT P. PERLO, M.D., Instructor in Neurology.

MAXWELL G. POTTER, M.D., Instructor in Psychiatry.

Fred A. Quadfasel, M.D., Instructor in Neurology.

DAVID E. REISER, M.D., Instructor in Psychiatry.

JACQUELINE L. ROSEN, Ph.D., Instructor in Psychology in the Department of Psychiatry (from September 1, 1962).

Donald H. Russell, M.D., Instructor in Psychiatry.

Joseph C. Sabbath, M.D., C.M., Instructor in Psychiatry.

Adele E. Scharl, M.D., Instructor in Psychiatry.

ROBERT D. SCHNITZER, Ph.D., Instructor in Psychology in the Department of Psychiatry.

MARY L. L. SCHOLL, M.D., Instructor in Neurology.

LIONEL A. SCHWARTZ, M.D., Instructor in Psychiatry.

BERTRAM SELVERSTONE, M.D., Instructor in Neuropathology.

Benjamin Shambaugh, M.D., Instructor in Psychiatry.

LEON N. SHAPIRO, M.D., Instructor in Psychiatry.

JUDITH G. SINGER, Ph.D., Instructor in Psychology in the Department of Psychiatry.

Benson R. Snyder, M.D., Instructor in Psychiatry.

EDWARD L. SPATZ, M.D., Instructor in Neurology.

HAROLD D. STALVEY, M.D., Instructor in Psychiatry.

MALVINA STOCK, M.D., Instructor in Psychiatry.

ALAN A. STONE, M.D., Instructor in Psychiatry.

JOHN B. STURROCK, M.B., B.S., Instructor in Psychiatry (from September 1, 1962).

JOHN F. SULLIVAN, M.D., Instructor in Neurology.

HELEN H. TARTAKOFF, M.D., Instructor in Psychiatry.

KAREL VAN S. TOLL, M.D., Instructor in Neurology.

SUZANNE T. VAN AMERONGER, M.D., Instructor in Psychiatry.

PAUL L. WATSON, M.D., Instructor in Psychiatry.

HENRY D. WEBSTER, M.D., Instructor in Neurology.

THOMAS G. WEBSTER, M.D., Instructor in Psychiatry.

JEROME L. WEINBERGER, M.D., Instructor in Psychiatry.

LIONELLE D. WELLS, M.D., Instructor in Psychiatry.

Howard E. Wulsin, M.D., Instructor in Psychiatry. NORMAN E. ZINBERG, M.D., Instructor in Psychiatry. WILLIAM C. ACKERLY, M.D., Assistant in Psychiatry. Morris H. Adler, M.D., Assistant in Psychiatry. BARBARA L. AESCHLIMAN, M.D., Assistant in Psychiatry. GEORGE L. ALEXANDER, JR., M.D., Assistant in Psychiatry. HENRY G. ALTMAN, M.D., Assistant in Psychiatry. WILLIAM H. AYRES, M.D., Assistant in Psychiatry. JUDITH G. BALOGH, M.D., Assistant in Psychiatry. RUTH B. BEUSCHER, M.D., Assistant in Psychiatry. WILLIAM F. BEUSCHER, M.D., Assistant in Psychiatry. WILLIAM A. BINSTOCK, M.D., Assistant in Psychiatry. GRAHAM B. BLAINE, JR., M.D., Assistant in Psychiatry. LENORE A. BOLING, M.D., Assistant in Psychiatry. DOROTHY M. BOLLINGER, M.D., Assistant in Psychiatry. ROBERT L. BRAGG, M.D., M.P.H., Assistant in Psychiatry. Anna C. Brown, M.D., Assistant in Psychiatry. Dexter M. Bullard, Jr., M.D., Assistant in Psychiatry. BERNARD L. BUSFIELD, JR., M.D., Assistant in Psychiatry. ARTHUR J. CAIN, M.D., Assistant in Psychiatry. Franklin Carter, M.D., Assistant in Psychiatry. GEORGE CHALPIN, M.D., Assistant in Psychiatry. MIGNON C. CHASEN, M.D., Assistant in Psychiatry. JACOB R. CHRIST, M.D., Assistant in Psychiatry. JOHN G. CLARK, JR., M.D., Assistant in Psychiatry. HERBERT S. CLINE, M.D., Assistant in Psychiatry. JAY L. COLLINS, M.D., Assistant in Psychiatry. JOHN C. COOLIDGE, M.D., Assistant in Psychiatry. WILLIAM M. CROWELL, M.D., Assistant in Psychiatry. RICHARD E. CUTLER, M.D., Assistant in Psychiatry. HADASSAH S. DANIELS, M.D., Assistant in Psychiatry. CHESTER C. D'AUTREMONT, M.D., Assistant in Psychiatry. EDWIN M. DAVIDSON, M.D., Assistant in Psychiatry. PAUL R. DINSMORE, M.D., Assistant in Psychiatry. ROBERT M. EISENDRATH, JR., M.D., Assistant in Psychiatry. RALPH P. ENGLE, Jr., M.D., Assistant in Psychiatry.

ALBERT H. FEINGOLD, M.D., Assistant in Psychiatry. ALICE M. FLEMING, M.D., Assistant in Psychiatry. THOMAS FRANK, M.D., Assistant in Psychiatry. RICHARD GALDSTON, M.D., Assistant in Psychiatry. JACQUELINE GAUTHIER, M.D., Assistant in Psychiatry. GEORGE E. GIFFORD, JR., M.D., Assistant in Psychiatry. HERBERT J. GOLDINGS, M.D., Assistant in Psychiatry. JACK GREEN, M.D., C.M., Assistant in Psychiatry. EMILE GRUNBERG, M.D., Assistant in Psychiatry. WALLACE F. HALEY, JR., M.D., Assistant in Psychiatry. Volta R. Hall, Jr., M.D., Assistant in Psychiatry. DORR F. HALLENBECK, JR., M.D., Assistant in Psychiatry. HERBERT I. HARRIS, M.D., Assistant in Psychiatry. JAMES A. HAYCOX, M.D., Assistant in Psychiatry. Francis C. Hersey, M.D., Assistant in Psychiatry. PHILLIP L. ISENBERG, M.D., Assistant in Psychiatry. LEE JACKSON, M.D., Assistant in Psychiatry. PETER B. JENNEY, M.D., Assistant in Psychiatry. PIERRE JOHANNET, M.D., Assistant in Psychiatry. ERNEST KAHN, M.D., Assistant in Psychiatry. MELVIN M. KAYCE, M.D., Assistant in Psychiatry. ROBERT L. KELLEY, M.D., Assistant in Psychiatry. WILLIAM KORNFELD, M.D., Assistant in Psychiatry. PAUL S. KRAUS, M.D., Assistant in Psychiatry. ARTHUR R. KRAVITZ, M.D., Assistant in Psychiatry. MARVIN B. KRIMS, M.D., Assistant in Psychiatry. ELIOT LANDSMAN, M.D., Assistant in Psychiatry. HERBERT O. LEVINE, M.D., Assistant in Psychiatry. Anne G. Levingston, M.D., Assistant in Psychiatry. DON R. LIPSITT, M.D., Assistant in Psychiatry. JOHN E. MACK, M.D., Assistant in Psychiatry. Arthur W. McMahon, M.D., Assistant in Psychiatry. Elinor Meiss, M.D., Assistant in Psychiatry. Edward Messner, M.D., Assistant in Psychiatry. EMANUEL MIREL, M.D., Assistant in Psychiatry. ELLEN B. Moseley, M.D., Assistant in Psychiatry.

BARBARA C. G. MUELLER, M.D., Assistant in Psychiatry.

EGBERT H. MUELLER, M.D., Assistant in Psychiatry.

MALKAH T. NOTMAN, M.D., Assistant in Psychiatry.

HARRY S. OLIN, M.D., Assistant in Psychiatry.

Donald Ottenstein, M.D., Assistant in Psychiatry.

VERNON D. PATCH, M.D., Assistant in Psychiatry.

ERNEST H. PICARD, M.D., Assistant in Neurology.

ALAN PRAGER, M.D., Assistant in Psychiatry.

Walter M. Presnell, M.D., Assistant in Psychiatry (from October 1, 1962).

Selma Rappaport, Ph.D., Assistant in Psychology in the Department of Psychiatry.

DAVIDA H. REES, M.D., Assistant in Psychiatry.

PETER REICH, M.D., Assistant in Psychiatry.

JOHN F. REICHARD, M.D., Assistant in Psychiatry.

PHELPS M. ROBINSON, M.D., Assistant in Psychiatry.

NANCY ROLLINS, M.D., Assistant in Psychiatry.

EDWARD J. SACHAR, M.D., Assistant in Psychiatry.

JOAE G. SELZER, M.D., Assistant in Psychiatry.

WILLIAM SHARPE, JR., M.D., Assistant in Psychiatry.

WILLIAM R. SHELTON, M.D., Assistant in Psychiatry.

MILES F. SHORE, M.D., Assistant in Psychiatry.

NATHAN T. SIDLEY, M.D., Assistant in Psychiatry.

STEWART R. SMITH, M.D., Assistant in Psychiatry.

RUTH E. STAUFFER, M.D., Assistant in Neurology.

RICHARD A. STERNBACH, Ph.D., Assistant in Psychology in the Department of Psychiatry.

Myron R. Stocking, M.D., Assistant in Psychiatry.

WILLIAM E. STONE, M.D., Assistant in Psychiatry.

JOHN B. STURROCK, M.B., B.S., Assistant in Psychiatry (July 1 through August 31, 1962).

MAURICE VANDERPOL, M.D., Assistant in Psychiatry.

JOHN VORENBERG, M.D., Assistant in Psychiatry.

HELEN D. WALLACH, M.D., Assistant in Psychiatry.

MARK M. WALTER, JR., M.D., M.P.H., Assistant in Psychiatry. STANLEY WALZER, M.D., Assistant in Psychiatry.

STEPHEN L. WASHBURN, M.D., Assistant in Psychiatry.

JOHN L. WEIL, M.D., Assistant in Psychiatry.

Frederick E. Whiskin, M.D., Assistant in Psychiatry.

LEE H. WILLER, M.D., Assistant in Psychiatry.

RICHARD V. WILSON, M.D., Assistant in Psychiatry.

HAROLD M. WOLMAN, M.D., Assistant in Psychiatry.

EDWARD L. ZARSKY, M.D., Assistant in Psychiatry.

Joan J. Zilbach, M.D., Assistant in Psychiatry.

Alberto A. Abadi, Equiv. of M.D., Research Fellow in Neuro-pathology (from January 1, 1963).

ROGER G. BANNISTER, M.B., CH.B., Research Fellow in Neurology

(appointment expired January 31, 1963).

Foster J. Barnes, M.B., B.S., Research Fellow in Neurology (from January 1, 1963).

WILLIAM J. BARNUM, JR., M.D., Research Fellow in Psychiatry.

BEATRICE H. BARRETT, Ph.D., Research Fellow in Psychology in the Department of Psychiatry (appointment expired August 31, 1962).

Kenneth R. Berg, Ph.D., Research Fellow in Psychology in the Department of Psychiatry.

HARRY BESKIND, M.D., Research Fellow in Psychiatry.

PHILIP R. BOYD, M.B., B.S., Research Fellow in Psychiatry.

ARNE BRUN, M.D., Research Fellow in Neuropathology.

CHARLES M. BRYANT, M.D., M.P.H., Research Fellow in Psychiatry.

Douglas Buchanan, M.D., Research Fellow in Psychiatry.

PETER T. CHORAS, M.D., Research Fellow in Psychiatry.

Howard A. Corwin, M.D., Research Fellow in Psychiatry.

JEANNETTE H. CORWIN, M.D., Research Fellow in Psychiatry.

HENRY B. DINSDALE, M.D., C.M., Research Fellow in Neurology.

Donald J. Fern, M.D., Research Fellow in Psychiatry.

Peter B. Field, Ph.D., Research Fellow in Psychology in the Department of Psychiatry.

Bruce W. Fischberg, M.D., Research Fellow in Psychiatry.

SID GILMAN, M.D., Research Fellow in Neurology.

LAWRENCE A. GUSTAFSON, Ph.D., Research Fellow in Psychology in the Department of Psychiatry.

MATHILDA S. HOLZMAN, Ph.D., Research Fellow in Psychology in the Department of Psychiatry.

EDA M. KAHANA, M.D., Research Fellow in Psychiatry.

Denise Kandel, A.B., Research Fellow in Psychology in the Department of Psychiatry (appointment expired August 31, 1962).

MARTIN KANTOR, M.D., Research Fellow in Psychiatry.

Bruce W. Konigsmark, M.D., Research Fellow in Neuropathology.

Anton O. Kris, M.D., Research Fellow in Psychiatry.

PIERRE KRUPP, M.D., Research Fellow in Neurology (appointment expired December 31, 1962).

RUTH LANDOLT, M.D., Research Fellow in Neuropathology.

ALEJANDRO MANTEROLA, M.D., Research Fellow in Neuropathology.

ALEKSANDER MATHE, M.D., Research Fellow in Psychiatry.

Dennis J. McCrory, M.D., Research Fellow in Psychiatry (from September 1, 1962).

ALEXANDER M. McPhedran, M.D., Research Fellow in Neurology.

ROBERT D. MEHLMAN, M.D., Research Fellow in Psychiatry. SANDRA L. MOGIL, M.D., Research Fellow in Psychiatry.

Peter Nathan, Ph.D., Research Fellow in Psychology in the Department of Psychiatry.

NANCY P. NICHOLS, M.D., Research Fellow in Psychiatry.

ALAN D. PERSKY, M.D., Research Fellow in Psychiatry.

JACK O. RICE, M.D., Research Fellow in Psychiatry.

ROBERT A. ROSENTHAL, Ph.D., Research Fellow in Psychology in the Department of Psychiatry.

RALPH R. RUSSELL, M.D., Research Fellow in Neurology (appointment expired September 30, 1962).

LAWRENCE C. SALVESEN, M.D., Research Fellow in Psychiatry.

PAUL E. SAPIR, M.D., Research Fellow in Psychiatry.

JOHN A. SCHREMLY, M.D., Research Fellow in Psychiatry.

CAPTANE PETER THOMSON, M.D., Research Fellow in Psychiatry.

DAVID VAN BUSKIRK, M.D., Research Fellow in Psychiatry. Joseph P. Van Der Meulen, M.D., Research Fellow in Neurology. PETER H. VAN DER WALDE, M.D., Research Fellow in Psychiatry. ALFRED D. WEISS, M.D., Research Fellow in Neurology. HAROLD W. WILLIAMS, JR., M.D., Research Fellow in Psychiatry. GERALD F. WINKLER, M.D., Research Fellow in Neuropathology. MERRILL K. WOLF, M.D., Research Fellow in Neuropathology. WALTER E. AFIELD, M.D., Teaching Fellow in Psychiatry. JACQUELINE M. AMATI, M.D., Teaching Fellow in Psychiatry. WILLIAM S. APPLETON, M.D., Teaching Fellow in Psychiatry. ARTHUR K. ASBURY, M.D., Teaching Fellow in Neuropathology. NICHOLAS C. AVERY, M.D., Teaching Fellow in Psychiatry. JOHN H. BACKMAN, M.D., Teaching Fellow in Psychiatry. KATHRYN S. BECK, M.D., Teaching Fellow in Psychiatry. Guido Belsasso-Prister, M.D., Teaching Fellow in Psychiatry. JANE M. BERMAN, M.D., Teaching Fellow in Psychiatry. Peter H. Berman, M.D., Teaching Fellow in Neurology. ELEANOR S. BOGOCH, D.M.D., M.D., Teaching Fellow in Psychiatry. HARVEY M. BUDNER, M.D., Teaching Fellow in Psychiatry. DAN H. BUIE, JR., M.D., Teaching Fellow in Psychiatry. RANDOLPH CATLIN, JR., M.D., Teaching Fellow in Psychiatry. ROBERT M. CHALFIN, M.D., Teaching Fellow in Psychiatry. RICHARD M. CHASIN, M.D., Teaching Fellow in Psychiatry. GEORGE CLOUTIER, M.D., Teaching Fellow in Psychiatry. ROY M. COLEMAN, M.D., Teaching Fellow in Psychiatry. MICHAEL L. CONNELL, M.D., Teaching Fellow in Psychiatry. DAVID M. DAWSON, M.D., Teaching Fellow in Neurology. DAN A. DITMORE, M.D., Teaching Fellow in Psychiatry. THEODORE DREIER, JR., M.D., Teaching Fellow in Psychiatry. LESLIE R. H. DREW, M.B., B.S., Teaching Fellow in Psychiatry. MATTHEW P. DUMONT, M.D., Teaching Fellow in Psychiatry. ROMAN W. EINHORN, M.D., Teaching Fellow in Neurology. Byron A. Eliashof, M.D., Teaching Fellow in Psychiatry. LARRY EMBREE, M.D., Teaching Fellow in Neuropathology.

Pattison Esmiol, M.D., Teaching Fellow in Psychiatry.
Robert W. Farkas, M.D., Teaching Fellow in Psychiatry.
Joel H. Feigon, M.D., Teaching Fellow in Psychiatry.
T. Corwin Fleming, M.D., Teaching Fellow in Neurology.
Stuart Q. Flerlage, Jr., M.D., Teaching Fellow in Psychiatry.
Leonard J. Friedman, M.D., Teaching Fellow in Psychiatry.
David G. Fryer, M.B., Ch.B., Teaching Fellow in Neurology.
Joyce R. Garratt, M.B., Ch.B., Teaching Fellow in Psychiatry.
Max Geller, M.D., Teaching Fellow in Psychiatry.
William H. Goodson, Jr., M.D., Teaching Fellow in Psychiatry.
Robert E. Hayes, 3rd., M.D., Teaching Fellow in Neuropathology.

GEORGE R. HENINGER, M.D., Teaching Fellow in Psychiatry.
ALBERT E. HERMAN, M.D., Teaching Fellow in Psychiatry.
ANN M. M. HIRSCHHORN, M.D., Teaching Fellow in Neurology.
AXEL HOFFER, M.D., Teaching Fellow in Psychiatry.
JOSHUA HOLLANDER, M.D., Teaching Fellow in Neurology.
JAMIES T. HOLMES, JR., M.D., Teaching Fellow in Psychiatry (re-

signed October 31, 1962)

Peter R. Huttenlocher, M.D., Teaching Fellow in Neurology. Alexandra M. Kail, M.D., C.M., Teaching Fellow in Psychiatry. Jacob J. Katzow, M.D., Teaching Fellow in Psychiatry. Erci P. Kindwall, M.D., Teaching Fellow in Psychiatry. Susan T. Kleeman, M.D., Teaching Fellow in Psychiatry. Alfred J. R. Koumans, M.D., Teaching Fellow in Psychiatry. Miroslav M. Kovacevich, M.D., Teaching Fellow in Psychiatry. Gabriel Koz, M.B., Ch.B., Teaching Fellow in Psychiatry (from October 1, 1962).

Morton Kurland, M.D., Teaching Fellow in Psychiatry.

Aaron Lazare, M.D., Teaching Fellow in Psychiatry.

Cavin P. Leeman, M.D., Teaching Fellow in Psychiatry.

Alan I. Levenson, M.D., Teaching Fellow in Psychiatry.

Carl Leventhal, M.D., Teaching Fellow in Neuropathology.

Bernard Levey, M.D., Teaching Fellow in Psychiatry.

Walter S. Levitsky, M.D., Teaching Fellow in Neurology.

Leila Liebman, M.D., Teaching Fellow in Psychiatry.

JOHN B. LIVINGSTONE, M.D., Teaching Fellow in Psychiatry.

D. John MacFadyen, M.D., Teaching Fellow in Neurology.

LEE B. MACHT, M.D., Teaching Fellow in Psychiatry.

JOHN T. MALTSBERGER, 3RD., M.D., Teaching Fellow in Psychiatry.

DENNIS J. McCrory, M.D., Teaching Fellow in Psychiatry (July

1 through August 31, 1962).

MICHAEL T. McGuire, M.D., Teaching Fellow in Psychiatry.

HOWARD D. McIntyre, Jr., M.D., Teaching Fellow in Neurology.

GUY M. McKhann, M.D., Teaching Fellow in Neuropathology.

JOHN F. MERRIFIELD, M.D., Teaching Fellow in Psychiatry.

MURIEL E. MOLDAWER, M.D., Teaching Fellow in Psychiatry.

RICHARD G. MORRILL, M.D., Teaching Fellow in Psychiatry.

Loren Mosher, M.D., Teaching Fellow in Psychiatry.

JAMES J. MULLEN, M.D., Teaching Fellow in Psychiatry.

Julian J. Newman, M.D., Teaching Fellow in Psychiatry.

SILVIO J. ONESTI, JR., M.D., C.M., Teaching Fellow in Psychiatry.

STANLEY R. PALOMBO, M.D., Teaching Fellow in Psychiatry.

CONSTANTINOS P. PANAYOTACOPOULOS, M.D., Teaching Fellow in Psychiatry.

SHYAM S. PANT, M.B., B.S., Teaching Fellow in Neurology.

EUGENE U. PIAZZA, M.D., Teaching Fellow in Psychiatry.

RICHARD O. POE, M.D., Teaching Fellow in Psychiatry.

JERROLD M. Post, M.D., Teaching Fellow in Psychiatry.

ARTHUR L. PRENSKY, M.D., Teaching Fellow in Neuropathology.

Donald L. Rife, M.D., Teaching Fellow in Psychiatry.

STEPHEN I. RING, M.D., Teaching Fellow in Psychiatry.

MICHAEL D. ROBBINS, M.D., Teaching Fellow in Psychiatry.

KENNETH S. Robson, M.D., Teaching Fellow in Psychiatry.

Edward J. Rolde, M.D., Teaching Fellow in Psychiatry.

JUDITH G. RONAT, M.D., Teaching Fellow in Psychiatry. ROBERT M. ROSE, M.D., Teaching Fellow in Psychiatry.

RACHEL M. ROSENBERG, M.D., Teaching Fellow in Psychiatry (from October 1, 1962).

PETER B. ROSENBERGER, M.D., Teaching Fellow in Neurology.

JOHN J. Ross, M.D., Teaching Fellow in Neurology.

CHRISTOPHER VAN A. ROWLAND, Jr., Teaching Fellow in Psychiatry.

SIRGAY SANGER, M.D., Teaching Fellow in Psychiatry.

DANIEL S. SAX, M.D., Teaching Fellow in Neurology.

Donald J. Scherl, M.D., Teaching Fellow in Psychiatry.

JOSEPH J. SCHILDKRAUT, M.D., Teaching Fellow in Psychiatry.

MELVYN B. SCHUPACK, M.D., Teaching Fellow in Psychiatry. Richard A. Schwartz, M.D., Teaching Fellow in Psychiatry.

MICHAEL A. SELZER, M.D., Teaching Fellow in Psychiatry.

RICHARD SENS, M.D., Teaching Fellow in Psychiatry.

CAROL C. SHANDER, M.D., Teaching Fellow in Psychiatry.

JOHN J. SOLTYS, JR., M.D., Teaching Fellow in Psychiatry (from September 1, 1962).

LARRY H. STRASBURGER, M.D., Teaching Fellow in Psychiatry. JOHN S. STRAUSS, M.D., Teaching Fellow in Psychiatry. Alberto Tafur, M.D., Teaching Fellow in Psychiatry. AHMAD TAGHAVY, M.D., Teaching Fellow in Neurology. GEORGE E. VAILLANT, M.D., Teaching Fellow in Psychiatry. PAUL WACHTER, M.D., Teaching Fellow in Psychiatry. MARY WEBB, M.D., Teaching Fellow in Neurology. Douglas F. Welpton, M.D., Teaching Fellow in Psychiatry. JOHN S. WELTNER, M.D., Teaching Fellow in Psychiatry. OLGA S. WERMER, M.D., Teaching Fellow in Psychiatry. BURTON WHITE, M.D., Teaching Fellow in Psychiatry. EMMETT WILSON, JR., M.D., Teaching Fellow in Psychiatry. Anna K. Wolff, M.D., Teaching Fellow in Psychiatry. JACOB C. WOLTERBEEK, M.D., Teaching Fellow in Psychiatry. GILBERT F. YOUNG, M.D., Teaching Fellow in Neuropathology. ROBERT R. YOUNG, M.D., Teaching Fellow in Neurology. Stephen L. Zaslow, M.D., Teaching Fellow in Psychiatry. PHILIP H. ZWEIFACH, M.D., Teaching Fellow in Neurology.

Affiliated:

RANDOLPH K. BYERS, M.D., Associate Clinical Professor of Pediatrics.

Neurology

Required Courses

Neurology A. Second Year. — Clinical lectures are given at the Boston City and Massachusetts General Hospitals to the entire class. The object of the course is to give the student a general knowledge of the principles of diagnosis of diseases of the nervous system as a preparation for later work.

Neurology B. Third Year. — Clinical lectures are given in the third year at the Boston City and the Massachusetts General Hospitals. This course is to cover differential diagnosis and the principles of treatment. The members of the class are also required to work in the neurological service at the B.C.H. or M.G.H. in sections during the year. For this work the more didactic teaching of the second year serves as a necessary preparation. The work is practical in character and serves to bring the student into immediate contact with patients.

SECOND YEAR

HOURS

Clinical lectures. Dr. Denny-Brown, B.C.H. and Dr. Adams, M.G.H.

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THIRD YEAR

Clinical lectures. Dr. Denny-Brown, B.C.H. and Dr. Adams, M.G.H.

10

Section teaching. B.C.H. and M.G.H. Each student attends ten or eleven two and a half-hour exercises in neurology.

33

Fourth Year Elective Courses

- I. Neurology. Dr. Denny-Brown, B.C.H. Whole course (clerkship), all day.
- 2. Neurology. Dr. Adams, M.G.H. Whole course (clerkship), all day. Each course limited to two students each month.
- 3. Neurology. Dr. H. R. Tyler, P.B.B.H. Whole course, all day. Limited number. (Same course as Medicine 7 Medical Neurology.)
- 4. Neurology. Drs. Timberlake, Adams and Associates. Lemuel Shattuck Hospital. Whole course, all day. Limited number.

- 5. Pediatric Neurology. Dr. Byers and Associates. C.M.C. Whole course all day. (Same course as Pediatrics 3f.)
- 6. Pediatric Neurology. Drs. Dodge, Adams and Associates. M.G.H. Whole course, all day. (Same course as Pediatrics 4c.)

Neuropathology

Required Course

NEUROPATHOLOGY A. Second Year. — The course consists of lectures, laboratory work, and demonstrations, amounting to fifty-four hours. The lectures introduce conceptions of value for the third year courses in neurology and psychiatry and for the neurological parts of courses in internal medicine and in surgery. Microscopical and gross specimens are studied.

SECOND YEAR

HOURS

73

Lectures and laboratory work. Dr. Adams and Staff. Four times a week, for four and one-half weeks.

Fourth Year Elective Course

20. Laboratory work. Opportunities for research are available at the laboratories of the M.G.H., B.C.H., and H.M.S. Time and instructor to be arranged with Drs. Adams or Denny-Brown.

Psychiatry

Required Courses

First and Second Year: — The course titled Growth and Development (described on page 91) embraces and integrates with the first two years of required course in Psychiatry.

PSYCHIATRY A. First Year. — Normal Growth and Development; 16 lectures, 7 discussion sessions, and 7 clinics. Introduction to the development of the human personality. The course reviews the understanding of the human being, whether sick or well, and the foundation is laid for the more advanced course in psychopathology. The lectures deal with the development of the human personality in the setting of the family and the culture from infancy through childhood

and adolescence to maturity and aging. Emphasis is laid upon the adjustment of normal personality types to various crises situations, the influence of anxiety and the significance of unconscious forces. Members of the psychiatric staff participate in the clinics designed to relate material of their course in the first year to problems of human development and variation.

Psychiatry B. Second Year. — The second year consists of 20 lectures in abnormal growth and development to develop further concepts of psychological functioning. Emphasis shifts to the nature and genesis of abnormal psychological mechanisms which result from individual, social and physical factors and are manifested in symptoms and behavioral disturbances. Four additional hours are given to introduce methods of history-taking and examination of patients designed to understand more fully socio-emotional factors in illness. The course includes lectures and clinical instruction in sections of four students on wards of the general hospitals. It is designed to serve as a preparation for the third year when the student will have direct contact with patients on hospital wards. Four three-hour sections are given in cooperation with physical diagnosis. Members of the Psychiatry Department participate in laboratory periods organized for the study of organ systems as part of the integrated teaching program.

PSYCHIATRY C. Third Year. — The class is divided into small sections for the clinical study of patients. Each student studies individual cases in the wards of the Massachusetts Mental Health Center. During the second half year, clinical lectures are given once a week at the Massachusetts Mental Health Center. The most important varieties of mental disorder are presented with emphasis upon early recognition of mental disease and methods of treatment.

PSYCHIATRY D. Fourth Year. — Each student serves as a clinical clerk for one month at the Massachusetts Mental Health Center, the Massachusetts General Hospital, or the McLean Hospital in conjunction with the Beth Israel Hospital, for out-patient work. Work with in-patients consists of the study of patients with various types of mental disorder and their treatment. The study and treatment of patients, with emphasis on the applications of psychiatry to general medical practice is given by the Harvard Teaching Unit of the Massachusetts Mental Health Center and the out-patient departments of the Massachusetts General and Beth Israel Hospitals. The psychiatric problems

of children are discussed by staff members of the Judge Baker Foundation at the Children's Hospital, and by those associated with the M.M.H.C., M.G.H., and B.I.H.

FIRST YEAR

HOURS

PSYCHIATRY A. Lectures and discussion groups. Drs. LINDEMANN, GARDNER, BIBRING and ASSOCIATES. Dr. GARDNER QUARTON coordinator for course in Growth and Development.

30

SECOND YEAR

PSYCHIATRY B. Lectures and section teaching. Drs. LINDEMANN, BIBRING and Associates. Dr. John Nemiah coordinator for course in Abnormal Growth and Development. In addition to twenty-two lectures, each student attends four three-hour exercises as part of the course in physical diagnosis.

I 2

THIRD YEAR

PSYCHIATRY C. Lectures and section teaching. Drs. EWALT, SEM-RAD, LUDWIG and ASSOCIATES. M.M.H.C. Each student attends at least ten three-hour exercises.

44

FOURTH YEAR

HOURS

PSYCHIATRY D. Clinical Clerkship. Drs. EWALT, HENDRICK and Associates at the hospitals concerned: D1-M.M.H.C., D2-M.G.H., D3-McL.H. and B.I.H.

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Fourth Year Elective Courses

Adult Psychiatry

- 4. Dr. Hendrick and Associates. M.M.H.C.
- 5. Dr. LINDEMANN and Associates. M.G.H.
- 6. Dr. Stanton and Associates. McL.H.
- 7. Dr. Bibring and Associates. B.I.H.

Child Psychiatry

- 8. Dr. Lamont and Associates. M.G.H. (same course as Pediatrics 5)
- 9. Dr. Rochlin and Associates. M.M.H.C.
- 10. Dr. GARDNER and Associates. C.M.C.
- 11. Dr. BIBRING and Associates. B.I.H.

Voluntary Courses

- 32. The Nature of the Hypnotic State. M.M.H.C. Dr. Orne and Associates. Offered twice each year. One two hour meeting each week will be held for a total of about twenty. Time to be arranged. May be taken as a Voluntary Course by third year students at the discretion of the instructors.
- 33. Basic Concepts of Dynamic Psychiatry. M.G.H. Dr. ELIZABETH ZETZEL. Tuesdays, two-hour seminar, time to be arranged. October through January. Open to third and fourth year students.

DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

- Duncan E. Reid, M.D., A.M. (hon.), William Lambert Richardson Professor of Obstetrics, and Head of the Department of Obstetrics and Gynecology.
- GEORGE VAN S. SMITH, M.D., W. H. Baker Professor of Gynecology, and Head of the Division of Gynecology.
- Langdon Parsons, M.D., Clinical Professor of Obstetrics and Gynecology and Director of Alumni Relations (from January 1, 1963).
- HILTON A. SALHANICK, Ph.D., M.D., Professor of Obstetrics and Gynecology at the Beth Israel Hospital.
- Somers H. Sturgis, M.D., Clinical Professor of Gynecology.
- Benjamin Tenney, Jr., M.D., Clinical Professor of Obstetrics and Gynecology.
- Howard Ulfelder, M.D., Joe Vincent Meigs Professor of Gynecology.
- Franklin F. Snyder, M.D., A.M. (hon.), Associate Professor of Anatomy and Obstetrics.
- Daniel Abramson, M.D., Assistant Clinical Professor of Obstetrics and Gynecology.
- CHRISTOPHER J. DUNCAN, M.D., Assistant Clinical Professor of Obstetrics and Gynecology.
- Francis M. Ingersoll, M.D., Assistant Clinical Professor of Gynecology.
- ROBERT W. KISTNER, M.D., Assistant Professor of Obstetrics and Gynecology at the Free Hospital for Women.
- OLIVE W. SMITH, Ph.D., Sc.D. (hon.), Assistant Professor of Biological Chemistry in the Department of Obstetrics and Gynecology at the Free Hospital for Women.
- PAUL A. YOUNGE, M.D., Assistant Clinical Professor of Gynecology.
- ROBERT H. BARKER, M.D., Clinical Associate in Obstetrics and Gynecology.

OBSTETRICS AND GYNECOLOGY

CHARLES L. EASTERDAY, M.D., Associate in Obstetrics and Gynecology at the Boston Lying-in Hospital.

THOMAS H. GREEN, JR., M.D., Clinical Associate in Gynecology.

RICHARD H. GROGAN, M.D., Clinical Associate in Obstetrics and Gynecology.

HERBERT W. HORNE, JR., M.D., Clinical Associate in Obstetrics

and Gynecology.

JOHN F. JEWETT, Clinical Associate in Obstetrics and Gynecology.

ALAN B. LITTLE, M.D., C.M., Associate in Obstetrics and Gynecology, and Tutor in Medical Science.

WILLIAM J. MULLIGAN, M.D., Clinical Associate in Obstetrics and Gynecology.

MELVIN L. TAYMOR, M.D., Clinical Associate in Gynecology.

WALTER S. JONES, M.D., Lecturer on Obstetrics.

HARRY N. ANTONIADES, Ph.D., Research Associate in Biological Chemistry in the Department of Obstetrics and Gynecology.

HECTOR A. CASTELLANOS, M.D., Research Associate in Obstetrics and Gynecology (appointment expired December 31, 1962).

PHILIP A. DRINKER, Ph.D., Research Associate in Obstetrics and Gynecology.

ABRAHAM D. FINEMAN, M.D., Research Associate in Obstetrics

and Gynecology.

DAVID H. GALLANT, Ph.D., Research Associate in Obstetrics and Gynecology.

John A. MacLaren, Ph.D., Research Associate in Obstetrics and

Gynecology.

ROBERT H. PURDY, Ph.D., Research Associate in Obstetrics and Gynecology.

MAURICE O. BELSON, M.D., Instructor in Obstetrics and Gyne-

cology.

Bertram H. Buxton, Jr., M.D., Instructor in Obstetrics and Gynecology.

Marion F. Eades, M.D., Instructor in Obstetrics and Gynecology. Celso R. García, M.D., Instructor in Obstetrics and Gynecology.

A. GORDON GAULD, M.D., Instructor in Obstetrics and Gynecology.

LUKE GILLESPIE, M.D., Instructor in Obstetrics and Gynecology. ARTHUR C. GORBACH, M.D., Instructor in Obstetrics and Gynecology.

WARD I. GREGG, M.D., Instructor in Gynecology.

Daniel H. Hindman, M.D., Instructor in Obstetrics and Gynecology.

CRAWFORD H. HINMAN, M.D., Instructor in Obstetrics and Gyne-

cology.

Ruby G. Jackson, M.D., C.M., Instructor in Obstetrics and Gynecology.

Howard N. Jacobson, M.D., Instructor in Obstetrics and Gyne-

cology.

Francis R. Lane, M.D., Instructor in Obstetrics and Gynecology. Thomas Leavitt, Jr., M.D., Instructor in Obstetrics and Gynecology.

HERBERT T. LEIGHTON, M.D., Instructor in Obstetrics and Gyne-

cology.

JOHN L. NEWELL, M.D., Instructor in Obstetrics and Gynecology. HAROLD W. RUBIN, M.D., Instructor in Obstetrics and Gyne-

cology.

LLOYD I. SEXTON, M.D., Instructor in Obstetrics and Gynecology. Bartlett H. Stone, M.D., Instructor in Obstetrics and Gynecology.

ARTHUR W. TUCKER, JR., M.D., Instructor in Obstetrics and

Gynecology.

ALBERT E. WEINER, M.D., Instructor in Obstetrics and Gynecology.

JAMES H. AUSTIN, M.D., Assistant in Obstetrics and Gynecology.

HERBERT E. BROOKS, Jr., M.D., Assistant in Obstetrics and Gynecology.

ROBERT W. BROWN, M.D., Assistant in Obstetrics and Gynecology.

MAX J. BULIAN, M.D., Assistant in Obstetrics and Gynecology.

Louis Burke, M.D., Assistant in Obstetrics and Gynecology.

ROBERT V. DANDROW, Jr., M.D., Assistant in Obstetrics and Gynecology.

OBSTETRICS AND GYNECOLOGY

GERALD R. DENNISON, M.D., Assistant in Obstetrics and Gynecology.

JOHN J. DRISCOLL, M.D., Assistant in Obstetrics and Gynecology.

CHARLES T. GRIFFITHS, M.D., Assistant in Obstetrics and Gynecology.

ROBERT L. JONES, M.D., Assistant in Obstetrics and Gynecology.

ALBERT Y. KEVORKIAN, M.D., Assistant in Gynecology.

WILLIAM J. MACDONALD, M.D., Assistant in Obstetrics.

JACK H. MARCOVITCH, M.D., Assistant in Obstetrics and Gynecology.

Joseph H. Phillips, M.D., Assistant in Gynecology.

CHARLES POTTER, M.D., Assistant in Obstetrics and Gynecology.

WILLIAM A. REID, M.D., Assistant in Obstetrics and Gynecology.

Frederic W. Ripley, Jr., M.D., Assistant in Obstetrics and Gynecology.

Peter G. Robbins, M.D., Assistant in Obstetrics and Gynecology.

GEORGE M. RYAN, Jr., M.D., Assistant in Obstetrics and Gynecology.

SEYMOUR SACKS, M.D., Assistant in Obstetrics and Gynecology.

LEONARD E. SAFON, M.D., Assistant in Obstetrics and Gynecology.

Arthur J. Schramm, M.D., Assistant in Obstetrics and Gynecology.

WESTON F. SEWALL, M.D., Assistant in Obstetrics and Gynecology.

SIDNEY STAHLER, M.D., Assistant in Obstetrics.

JOHN TURNER, 2D, M.D., Assistant in Obstetrics and Gynecology.

CLEMENT YAHIA, M.D., Assistant in Obstetrics and Gynecology.

Kiyoshi Arai, M.D., Research Fellow in Obstetrics and Gynecology (appointment expired January 31, 1963).

Howard J. Osofsky, M.D., Research Fellow in Obstetrics and Gynecology.

Bernardo A. Santamarina, M.D., Research Fellow in Obstetrics and Gynecology.

Joseph J. Barlow, M.D., Teaching Fellow in Obstetrics and Gynecology.

THEODORE C. BARTON, M.D., Teaching Fellow in Obstetrics and Gynecology.

DICK A. J. BROWN, M.D., Teaching Fellow in Obstetrics and Gynecology (appointment expired December 31, 1962).

Luis C. W. Dupont, M.D., Teaching Fellow in Obstetrics and Gynecology.

THEODORE FAINSTAT, M.D., C.M., Teaching Fellow in Obstetrics and Gynecology.

Donald P. Goldstein, M.D., Teaching Fellow in Obstetrics and Gynecology.

Donald A. Goss, M.D., Teaching Fellow in Obstetrics and Gynecology.

JOHN W. GROVER, M.D., Teaching Fellow in Obstetrics and Gynecology.

SAMIR N. HAJJ, M.D., Teaching Fellow in Obstetrics and Gynecology (appointment expires March 31, 1963).

ARTHUR L. HERBST, M.D., Teaching Fellow in Obstetrics and Gynecology.

Hugh R. Holtrop, M.D., Teaching Fellow in Obstetrics and Gynecology.

JAMES P. JOHNSON, M.D., Teaching Fellow in Obstetrics and Gynecology (appointment expired September 30, 1962).

JOHN B. JOSIMOVICH, M.D., Teaching Fellow in Obstetrics and Gynecology.

JOHN L. LEWIS, JR., M.D., Teaching Fellow in Obstetrics.

ABDEL-AZIZ MARZOUK, M.B., Ch.B., Teaching Fellow in Obstetrics and Gynecology.

Required Courses

Second Year. — Whole class exercises in conjunction with the Departments of Medical Science and of the several clinical disciplines, covering the broad aspects of the physiology of reproduction and of femaleness from infancy to senility. In the second year the Department of Obstetrics and Gynecology contributes to a series of practical exercises in physical diagnosis which introduces the student to basic clinical techniques.

OBSTETRICS AND GYNECOLOGY

Third Year. — During the year 20 lectures on selected subjects are given at the Harvard Medical School. In addition, one month is devoted to instruction in the outpatient clinics and wards of the Boston City Hospital, the Boston Lying-in Hospital, the Free Hospital for Women, and the gynecologic services of the Massachusetts General Hospital and the Peter Bent Brigham Hospital. Afternoon seminars are conducted to supplement the lectures and outpatient instruction and to foster student participation.

Fourth Year. — The student devotes one month to clinical obstetrics and gynecology at the Boston City Hospital, the Beth Israel Hospital, the Boston Lying-in Hospital, and the Free Hospital for Women. He participates in the management of labor and delivery and takes part in the care of the mother and her infant during their hospital stay. Also, he receives instruction in the interaction of medical and surgical disease in pregnancy and gynecological conditions, and assists at operations. In addition, he attends Obstetric and Medical Grand Rounds and Clinicopathological Conferences at the Boston Lying-in Hospital and the Free Hospital for Women.

Participation in pathophysiology endocrine system.

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THIRD YEAR

Lectures. Drs. Reid, Smith, Sturgis, Tenney, Salhanick, Ulfelder, and Associates.

Practical instruction and seminars in clinical obstetrics and gynecology. 140

FOURTH YEAR

Clinical obstetrics and gynecology. Drs. Reid, Smith, Salhanick, Tenney, and Associates.

Fourth Year Elective Courses

Gynecology. The fourth year student may devote an elective month to gynecology at the Free Hospital for Women, the Massachusetts General Hospital, or the Peter Bent Brigham Hospital. This consists of case teaching, whose objective is to correlate medical science and the several clinical disciplines with the diagnosis and

management of the diseases of women. The student will be given the opportunity to follow gynecologic patients completely through their hospital course from the pre-operative work-up, through the operative experience, and on the wards to their discharge. He will be given the opportunity to review the basic disciplines of physiology and endocrinology, through reading or in the laboratory, as they apply to the material. Drs. Smith, Sturgis, and Ulfelder. Whole course, all day.

Obstetrics. Providence Lying-in Hospital. Dr. Walter Jones and Associates. One month.

OPHTHALMOLOGY

DEPARTMENT OF OPHTHALMOLOGY

DAVID G. COGAN, M.D., Professor of Ophthalmology, Head of the Department, and Director of the Howe Laboratory of Ophthalmology.

PAUL A. CHANDLER, M.D., D.S. (hon.), Associate Clinical Pro-

fessor of Ophthalmology.

HENRY F. ALLEN, M.D., Assistant Clinical Professor of Ophthalmology.

WILLIAM P. BEETHAM, M.D., Assistant Clinical Professor of Ophthalmology.

VIRGIL G. CASTEN, M.D., Assistant Clinical Professor of Ophthalmology.

CARL C. JOHNSON, M.D., Assistant Clinical Professor of Ophthalmology (from Octover 1, 1962).

PAUL BOEDER, Ph.D., Lecturer on Ophthalmology.

CARL C. JOHNSON, M.D., Clinical Associate in Ophthalmology (through September 30, 1962).

Brendan D. Leahey, M.D., Clinical Associate in Ophthalmology. CHARLES L. SCHEPENS, M.D., Clinical Associate in Ophthalmology.

ALBERT E. SLOANE, M.D., Clinical Associate in Ophthalmology.

TAYLOR R. SMITH, M.D., Clinical Associate in Ophthalmology.

GARRETT L. SULLIVAN, JR., M.D., Clinical Associate in Ophthalmology.

ENDRE A. BALAZS, M.D., Lecturer on Ophthalmology.

Russell L. Carpenter, Ph.D., Lecturer on Ophthalmology.

TRYGVE GUNDERSEN, M.D., Lecturer on Ophthalmology.

LEONA R. ZACHARIAS, Ph.D., Lecturer on Ophthalmology.

Michio Oikawa, M.D., Ph.D., Research Associate in Ophthalmology.

HARRY E. BRACONIER, M.D., Instructor in Ophthalmology.

ROBERT J. BROCKHURST, M.D., Instructor in Ophthalmology.

THOMAS J. A. CAVANAUGH, M.D., C.M., Instructor in Ophthalmology.

Julian F. Chisholm, Jr., M.D., Instructor in Ophthalmology.

Joseph M. Clough, M.D., Instructor in Ophthalmology.

CLAES-HENRIK DOHLMAN, M.D., Ph.D., Instructor in Ophthalmology.

Mahlon T. Easton, M.D., Instructor in Ophthalmology.

John M. Hill, M.D., Instructor in Ophthalmology.

SUMNER D. LIEBMAN, M.D., Instructor in Ophthalmology.

HENRY A. Mosher, M.D., Instructor in Ophthalmology.

RICHARD B. PIPPITT, M.D., Instructor in Ophthalmology.

ABRAHAM POLLEN, M.D., Instructor in Ophthalmology.

CHARLES D. J. REGAN, M.D., Instructor in Ophthalmology.

KARL RIEMER, M.D., Instructor in Ophthalmology.

EARL S. SEALE, M.D., Instructor in Ophthalmology.

Ernst G. G. Wolf, Ph.D., Instructor in Ophthalmology.

SAUL A. BORUCHOFF, M.D., Assistant in Ophthalmology.

RICHARD B. CHAPMAN, M.D., Assistant in Ophthalomology.

THOMAS P. CRONIN, M.D., Assistant in Ophthalmology.

ROBERT J. HERM, M.D., Assistant in Ophthalmology.

RALPH H. HINCKLEY, M.D., Assistant in Ophthalmology.

BARUCH J. SACHS, M.D., Assistant in Ophthalmology.

ALFRED W. Scott, M.D., Assistant in Ophthalmology.

WILLIAM STONE, JR., M.D., Assistant in Ophthalmology.

Francis J. West, M.D., Assistant in Ophthalmology.

MICHAEL WIEDMAN, M.D., Assistant in Ophthalmology.

BENJAMIN ZIV, M.D., Assistant in Ophthalmology.

EPHRAIM FRIEDMAN, M.D., Teaching Fellow in Ophthalmology.

Required Courses

First Year. — Lecture in anatomy and physiology of the eye. Second Year. — Lecture in pathology and pharmacology of the eye. Third Year. — Instruction in clinical ophthalmology.

THIRD YEAR

HOURS

Thirteen clinical exercises. M.E.E.I.

35

4

Lectures on clinical ophthalmology. H.M.S., second half-year.

Fourth Year Elective Course

1. Clinical Ophthalmology. Drs. Cogan, Chandler and Associates. M.E.E.I. Whole course, all day.

OPHTHALMOLOGY

Howe Laboratory of Ophthalmology

- DAVID G. COGAN, M.D., Professor of Ophthalmology, Head of the Department, and Director of the Howe Laboratory of Ophthalmology.
- W. Morton Grant, M.D., Associate Professor of Ophthalmology at the Massachusetts Eye and Ear Infirmary.
- DAVID D. DONALDSON, M.D., Assistant Professor of Ophthalmology.
- JIN H. KINOSHITA, Ph.D., Assistant Professor of Biological Chemistry in the Howe Laboratory of Ophthalmology.
- CARL KUPFER, M.D., Assistant Professor of Ophthalmology at the Massachusetts Eye and Ear Infirmary (from October 1, 1962).
- Toichiro Kuwabara, M.D., Assistant Professor of Ophthalmology at the Massachusetts Eye and Ear Infirmary.
- Sidney Futterman, Ph.D., Associate in Biological Chemistry in the Department of Ophthalmology at the Massachusetts Eye and Ear Infirmary.
- John S. Andrews, Jr., Ph.D., Instructor in Ophthalmic Research.
- CARL KUPFER, M.D., Instructor in Ophthalmology (July 1 through September 30, 1962).
- ABRAHAM SPECTOR, Ph.D., Instructor in Ophthalmic Research.
- JEREMY B. WHITNEY, M.D., Assistant in Ophthalmology.
- JAMES H. ELLIOTT, M.D., Research Fellow in Ophthalmology (from September 1, 1962).
- SELMA HAYMAN, PH.D., Research Fellow in Ophthalmology.
- HENRY T. J. MOUNT, M.D., Research Fellow in Ophthalmology.

The Howe Laboratory of Ophthalmology was founded in 1927 by the late Dr. Lucien Howe. A sum of money equal to that initially given by Dr. Howe was donated by the Rockefeller Foundation. Laboratory space was provided by the Massachusetts Eye and Ear Infirmary.

The purpose of the Laboratory is to advance ophthalmology; its researches are not restricted to any particular phase of this science. Advantage is taken of the rich clinical material of the Infirmary. While the Laboratory is purely an institution for research, the services of the various members of the staff are available for teaching in the Harvard Medical School and for assistance in the clinical work of the Infirmary.

ORTHOPEDIC SURGERY

DEPARTMENT OF ORTHOPEDIC SURGERY

Joseph S. Barr, M.D., John Ball and Buckminster Brown Clinical Professor of Orthopedic Surgery, and Head of the Department at the Massachusetts General Hospital.

WILLIAM T. GREEN, M.D., Harriet M. Peabody Professor of Orthopedic Surgery, and Head of the Department at The

Children's Hospital.

THORNTON BROWN, M.D., Associate Clinical Professor of Orthopedic Surgery.

MELVIN J. GLIMCHER, M.D., Associate Professor of Orthopedic Surgery at the Massachusetts General Hospital.

OTTO E. AUFRANC, M.D., Assistant Clinical Professor of Orthopedic Surgery.

Jonathan Cohen, M.D., Assistant Clinical Professor of Orthopedic Surgery.

PAUL W. HUGENBERGER, M.D., Lecturer on Orthopedic Surgery.

HENRY H. BANKS, M.D., Clinical Associate in Orthopedic Surgery.

MEIER KARP, M.D., Clinical Associate in Orthopedic Surgery

(died September 13, 1962).

ARTHUR W. TROTT, M.D., Clinical Associate in Orthopedic Surgery.

Anthony L. Andrikides, Ph.D., Research Associate in Biological Chemistry in the Department of Orthopedic Surgery.

MURRAY V. KING, Ph.D., Research Associate in Biological Chemistry in the Department of Orthopedic Surgery.

WILLIAM A. ELLISTON, M.B., CH.B., Instructor in Orthopedic Surgery.

PAUL P. GRIFFIN, M.D., Instructor in Orthopedic Surgery.

WILLIAM H. HARRIS, M.D., Instructor in Orthopedic Surgery.

WILLIAM N. Jones, M.D., Instructor in Orthopedic Surgery.

WILLIAM L. KERMOND, M.B., B.S., Instructor in Orthopedic Surgery.

JOHN G. KUHNS, M.D., Sc.D., Instructor in Orthopedic Surgery.

J. Drennan Lowell, M.D., Instructor in Orthopedic Surgery.

WILLIAM R. MACAUSLAND, JR., M.D., Instructor in Orthopedic Surgery.

RICHARD A. MAYO, M.D., Instructor in Orthopedic Surgery.

PAUL L. NORTON, M.D., Instructor in Orthopedic Surgery.

EUGENE E. RECORD, M.D., Instructor in Orthopedic Surgery.

CARTER R. Rowe, M.D., Instructor in Orthopedic Surgery.

Morten Smith-Petersen, M.D., Instructor in Orthopedic Surgery.

ROBERT ULIN, M.D., Instructor in Orthopedic Surgery.

Frank D. Bates, M.D., Assistant in Orthopedic Surgery.

JOHN H. BOWKER, M.D., Assistant in Orthopedic Surgery.

James H. Eldredge, M.D., Assistant in Orthopedic Surgery.

Edward A. Nalebuff, M.D., Assistant in Orthopedic Surgery.

EDWARD J. RISEBOROUGH, M.B., CH.B., Assistant in Orthopedic Surgery.

MIHRAN O. TACHDJIAN, M.D., Assistant in Orthopedic Surgery.

Camille J. Francois, M.D., Research Fellow in Orthopedic Surgery (from September 1, 1962).

ULF A. FRIBERG, M.D., Research Fellow in Orthopedic Surgery. ELTON P. KATZ, Ph.D., Research Fellow in Orthopedic Surgery.

GERALD L. MECHANIC, Ph.D., Research Fellow in Orthopedic Surgery.

Bronnetta L. Scott, Ph.D., Research Fellow in Orthopedic Surgery.

DOROTHY F. TRAVIS, Ph.D., Research Fellow in Orthopedic Surgery.

Dudley M. Baker, M.D., Teaching Fellow in Orthopedic Surgery (appointment expired July 31, 1962).

FELIX A. BATTAT, M.D., Teaching Fellow in Orthopedic Surgery (from October 1, 1962).

RICHARD G. EATON, M.D., Teaching Fellow in Orthopedic Surgery (appointment expired December 31, 1962).

Christopher H. Isensee, M.D., Teaching Fellow in Orthopedic Surgery (October 1, 1962 through March 31, 1963).

ORTHOPEDIC SURGERY

GERALD KENNER, M.D., Teaching Fellow in Orthopedic Surgery (appointment expired September 30, 1962).

DAVID C. MITCHELL, M.D., Teaching Fellow in Orthopedic Sur-

gery (January 1 through March 31, 1963).

John J. Monahan, M.D., Teaching Fellow in Orthopedic Surgery (from April 1, 1963).

CLEMENT B. SLEDGE, M.D., Teaching Fellow in Orthopedic Sur-

gery (October 1 through December 31, 1962).

HENRY D. WILDE, JR., Teaching Fellow in Orthopedic Surgery (from January 1, 1963).

Required Course

ORTHOPEDIC SURGERY A. Third Year. — Instruction is given in orthopedic surgery by lectures at The Children's Hospital Medical Center and the Massachusetts General Hospital in the first half of the third year, and in sections throughout the third year by clinical exercises at The Children's Hospital Medical Center, the Massachusetts General Hospital, the Peter Bent Brigham Hospital, and the Beth Israel Hospital.

THIRD YEAR

HOURS

Lectures. Drs. Barr, Green, and Associates. C.H.M.C.

Clinical exercises. Drs. Barr, Green, and Associates. M.G.H.,

C.H.M.C., P.B.B.H., and B.I.H. In sections throughout the year.

Thirty-five of these hours are clinical exercises in orthopedic surgery and surgery of trauma in adults which are correlated with clinical exercises in general surgery at the Massachusetts General Hospital, the Peter Bent Brigham Hospital and the Beth Israel Hospital during the surgery assignment to these hospitals. Forty-five hours are clinical exercises in general and pediatric orthopedic surgery at The Children's Hospital Medical Center.

FOURTH YEAR

Clinical exercises and assignments are provided in correlation with the prescribed general surgical course at the B.I.H., M.G.H., and P.B.B.H.

Fourth Year Elective Courses

- 1. Clinical Course. Dr. BARR and Associates. M.G.H. Whole course, all day. Limited to two students each month.
- 2. Clinical Course. Dr. Green and Associates. C.H.M.C. Whole course, all day. Limited to two students each month.
- 3. Clinical Course. Drs. Green, Barr, and Associates. C.H.M.C. and M.G.H. Whole course, all day. Limited to two students each month.

OTOLOGY AND LARYNGOLOGY

DEPARTMENT OF OTOLOGY AND LARYNGOLOGY

HAROLD F. SCHUKNECHT, M.D., A.M. (hon.), Walter Augustus Lecompte Professor of Otology, Professor of Laryngology, and Head of the Department.

GEORGE F. REED, M.D., Assistant Clinical Professor of Laryn-

gology.

JOHN R. RICHARDSON, M.D., Assistant Clinical Professor of Laryngology.

Francis L. Weille, M.D., Assistant Clinical Professor of Otology. WILLIAM W. MONTGOMERY, M.D., Clinical Associate in Otology.

Nelson Y. Kiang, Ph.D., Research Associate in Otolaryngology. ROBERT KIMURA, A.B., Research Associate in Otolaryngology.

SWIATOPOLK P. MARFEY, Ph.D., Research Associate in Biological Chemistry in the Department of Otology and Laryngology.

WALTER A. ROSENBLITH, ING.RAD., Research Associate in Otology.

Hugo D. Angelini, M.D., Instructor in Otology.

Walter J. E. Carroll, M.D., Instructor in Laryngology.

JOSHUA C. DROOKER, M.D., Instructor in Laryngology.

CHARLES F. FERGUSON, M.D., Instructor in Otolaryngology.

CARLYLE G. FLAKE, M.D., Instructor in Laryngology.

ALLAN C. GOODMAN, Ph.D., Instructor in Otology (from January 1, 1963).

Louis E. Griffey, M.D., Instructor in Otolaryngology.

EDGAR M. HOLMES, M.D., Instructor in Otology.

CHARLES KENT, M.D., Instructor in Laryngology.

Robert E. Klotz, M.D., Instructor in Otology.

JOSEPH LENTINE, M.D., Instructor in Otolaryngology.

DONALD K. LEWIS, M.D., Instructor in Otology and Laryngology.

ARAM ROOPENIAN, M.D., Instructor in Otalaryngology.

George H. Williams, M.D., Instructor in Otolaryngology (resigned September 30, 1962).

Werner D. Chasin, M.D., Assistant in Otolaryngology.

GEZA J. JAKO, M.D., Assistant in Otolaryngology.

ALBERT W. KOCH, Ed.D., Assistant in Otology.

SIDNEY SHORE, M.D., Assistant in Otolaryngology.

FLOYD B. GOFFIN, M.D., Teaching Fellow in Otolaryngology (from December 1, 1962).

Fredric W. Pullen, 2ND., Teaching Fellow in Otolaryngology (from December 1, 1962).

SEYMOUR H. REUTER, M.S., Teaching Fellow in Otolaryngology (from December 1, 1962).

JOHN B. ROBERTS, M.D., Teaching Fellow in Otolaryngology (from December 1, 1962).

EDWARD F. SHAVER, JR., M.D., Teaching Fellow in Otolaryngology (from December 1, 1962).

Affiliated:

JOHN S. IRWIN, M.D., Research Associate in Microcirculation, M.I.T.

Required Course

Otology and Laryngology A. Third Year. — Instruction is given by lectures at the Harvard Medical School and clinical instruction in the third year in sections, each student receiving instruction every morning for two weeks at the M.E.E.I.

THIRD YEAR HOURS
Clinical exercises. Dr. Schuknecht and Associates. M.E.E.I.

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Ten or twelve exercises for each student.

Lectures in Otology. Dr. Schuknecht.

Lectures in Laryngology. Drs. Richardson and Reed.

Fourth Year Elective Courses

1. Clinical Otology. Dr. Schuknecht and Associates. M.E.E.I. Half-course, mornings, offered throughout the year.

2. Clinical Laryngology. Dr. Schuknecht and Associates. M.E.E.I. Half-course, mornings, offered throughout the year.

(These courses are limited to two students each month.)

PATHOLOGY

DEPARTMENT OF PATHOLOGY

- ARTHUR T. HERTIG, M.D., Shattuck Professor of Pathological Anatomy, and Head of the Department.
- Benjamin Castleman, M.D., Professor of Pathology at the Massachusetts General Hospital.
- JOHN M. CRAIG, M.D., Clinical Professor of Pathology.
- Gustave J. Dammin, M.D., Elsie T. Friedman Professor of Pathology.
- Sidney Farber, M.D., Professor of Pathology at The Children's Hospital.
- DAVID G. FREIMAN, M.D., Professor of Pathology at the Beth Israel Hospital.
- SHIELDS WARREN, M.D., D.Sc. (hon.), Professor of Pathology at the New England Deaconess Hospital.
- PHILIP M. LECOMPTE, M.D., Associate Clinical Professor of Pathology.
- Guido Majno, M.D., A.M. (hon.), Associate Professor of Pathology.
- WILLIAM A. MEISSNER, M.D., Associate Clinical Professor of Pathology.
- WALLACE H. CLARK, JR., M.D., Assistant Professor of Pathology at the Massachusetts General Hospital.
- RICHARD B. COHEN, M.D., Assistant Professor of Pathology at the Massachusetts General Hospital.
- OLIVE GATES, M.D., Assistant Clinical Professor of Pathology.
- EARL "E" HELLERSTEIN, M.D., Assistant Professor of Pathology.
- JOHANNES P. KULKA, M.D., Assistant Clinical Professor of Pathology.
- Franz von Lichtenberg, M.D., Assistant Professor of Pathology at the Peter Bent Brigham Hospital.
- RICHARD A. MACDONALD, M.D., Assistant Professor of Pathology.
- ROBERT E. Scully, M.D., Assistant Clinical Professor of Pathology.

EDGAR B. TAFT, M.D., Assistant Professor of Pathology at the Massachusetts General Hospital and Tutor in Pathology.

GORDON F. VAWTER, M.D., Assistant Clinical Professor of Pathology.

AUSTIN L. VICKERY, JR., M.D., Assistant Clinical Professor of Pathology.

ROBERT FIENBERG, M.D., Lecturer on Pathology.

Bernard F. Trum, D.V.M., Lecturer on Veterinary Medicine in the Department of Pathology.

LEONARD ATKINS, M.D., Clinical Associate in Pathology.

JAMES B. CAULFIELD, M.D., Associate in Pathology at the Massachusetts General Hospital.

Bradley E. Copeland, M.D., Clinical Associate in Pathology.

Joseph M. Corson, M.D., Associate in Pathology at the Peter Bent Brigham Hospital.

GEORGE W. CURTIS, M.D., Clinical Associate in Pathology.

SHIRLEY G. DRISCOLL, M.D., Associate in Pathology at the Boston Lying-in Hospital.

JAMES T. DUHIG, M.B., CH.B., Clinical Associate in Pathology.

ROBERT L. EHRMANN, M.D., Clinical Associate in Pathology.

THOMAS J. GILL, 3RD., M.D., Associate in Pathology.

HAZEL M. GORE, M.B., CH.B., Associate in Pathology.

THOMAS C. JONES, D.V.M., Clinical Associate in Pathology.

Morris J. Karnovsky, M.B., Ch.B., Associate in Pathology (on leave February 1, 1961–January 31, 1963).

SI-CHUN MING, M.D., Clinical Associate in Pathology.

WINFIELD S. MORGAN, M.D., Associate in Pathology at the Massachusetts General Hospital.

REUBEN Z. SCHULZ, M.D., Clinical Associate in Pathology.

RONALD C. SNIFFEN, M.D., Clinical Associate in Pathology.

Aron E. Szulman, M.B., Ch.B., Clinical Associate in Pathology. Ira Gore, M.D., Lecturer on Pathology.

James H. Graham, M.D., Lecturer on Pathology.

HERMANN LISCO, M.D., Visiting Lecturer on Pathology (from October 1, 1962).

G. Kenneth Mallory, M.D., Lecturer on Pathology.

PATHOLOGY

STANLEY L. ROBBINS, M.D., Lecturer on Pathology.

RICHARD A. ADAMS, Ph.D., Research Associate in Pathology.

Rogelio Alarcon, M.D., Research Associate in Pathology.

GIUSEPPE CARDINALI, M.D., Research Associate in Pathology.

SAMUEL S. EPSTEIN, M.D., Research Associate in Pathology.

GEORGE E. FOLEY, D.Sc., Research Associate in Pathology.

LIPPMAN H. GERONIMUS, Ph.D., Research Associate in Pathology.

Morris N. Green, Ph.D., Research Associate in Pathology.

ALFRED H. HANDLER, Ph.D., Research Associate in Pathology.

HERBERT E. HEIST, Ph.D., Research Associate in Pathology.

Albert E. Hirst, M.D., Research Associate in Pathology (appointment expired August 31, 1962).

DAVID L. JOFTES, Ph.D., Research Associate in Pathology.

Lorna D. Johnson, M.D., Research Associate in Pathology.

ARLENE C. LONGWELL, Ph.D., Research Associate in Pathology.

CHARLOTTE L. MADDOCK, Ph.D., Research Associate in Pathology.

ROBERT E. McCarthy, Ph.D., Research Associate in Pathology.

EDWARD J. Modest, Ph.D., Research Associate in Pathology.

Patricia J. O'Morchoe, M.B., Ch.B., Research Associate in Pathology.

FELIX RODRIGUEZ Y LEGASPI, M.D., Research Associate in Pathology.

Agnes B. Russfield, Ph.D., M.D., Research Associate in Pathology.

Elliott W. Strauss, M.D., Research Associate in Pathology.

BETTY B. G. UZMAN, M.D., Research Associate in Pathology.

George Yerganian, Ph.D., Research Associate in Pathology.

Karoly Balogh, M.D., Instructor in Pathology.

RAMZI S. COTRAN, M.D., Instructor in Pathology.

DIANE W. CROCKER, M.D., Instructor in Pathology.

CHARLES J. DE WAN, M.D., Instructor in Pathology.

Martin H. Flax, Ph.D., M.D., Instructor in Pathology.

GILBERT H. FRIEDELL, M.D., Instructor in Pathology (from September 1, 1962).

они D. Houghton, M.D., Instructor in Pathology.

оsерн S. Incze, M.D., Instructor in Pathology.

MERLE A. LEGG, M.D., C.M., Instructor in Pathology.

MAX M. LEVENE, M.R.C.S., L.R.C.P., Instructor in Pathology (from September 1, 1962).

Julio Levy, M.D., Instructor in Pathology (from September 1, 1962).

ARTHUR A. LIKE, M.D., Instructor in Pathology.

Joseph C. Merriam, Jr., M.D., Instructor in Pathology.

MIRIAM MOLDVEEN (GERONIMUS), M.D., Instructor in Pathology.

ARTHUR E. O'DEA, M.D., Instructor in Pathology.

GISELLE S. PECHET, M.D., Instructor in Pathology.

JOHN A. PETERS, M.D., Instructor in Pathology.

MELVIN D. REUBER, M.D., Instructor in Pathology.

EDWARD S. REYNOLDS, JR., M.D., Instructor in Pathology.

STEPHEN M. SHEA, M.B., CH.B., Instructor in Pathology.

Joe Suyemoto, M.D., Instructor in Pathology.

PRISCILLA D. TAFT, M.D., Instructor in Pathology.

HAROLD J. WHITE, M.D., Instructor in Pathology.

CHRISTOPHER M. WISEMAN, M.D., Instructor in Pathology.

THOMAS E. YOUNG, M.D., C.M., Instructor in Pathology (from September 1, 1962).

GEORGE K. BAER, M.D., Assistant in Pathology (from September 1, 1962).

GLENNA J. CORLEY, M.D., Assistant in Pathology.

MARGARIDA N. DE M. DEDERICK, M.D., Assistant in Pathology.

GEORGE R. DICKERSIN, M.D., Assistant in Pathology.

Donald Feldman, M.D., Assistant in Pathology.

ROBERT S. HARPER, M.D., Assistant in Pathology (from September 1, 1962).

CARL A. HARRIS, Ph.D., M.D., Assistant in Pathology.

MAURICE M. HELPERN, M.D., Assistant in Pathology.

SANFORD I. ROTH, M.D., Assistant in Pathology.

ALBERT E. ANDERSON, M.D., Research Fellow in Pathology.

Bruce E. Belshaw, D.V.M., Research Fellow in Pathology.

STANLEY COHEN, M.D., Research Fellow in Pathology.

Andrew Dekker, M.D., Research Fellow in Pathology.

Hossein-Dariush Fahimi, M.D., Research Fellow in Pathology. PIERGIORGIO FRANCESCHINI, M.D., Research Fellow in Pathology (December 15, 1962 through May 15, 1963).

CHARLEY E. GILMORE, D.V.M., Research Fellow in Pathology. SALVADOR JAIMES, M.D., Research Fellow in Pathology (from September 1, 1962).

Polius A. Raslavicius, M.D., Research Fellow in Pathology.

ADRIANNE E. ROGERS, M.D., Research Fellow in Pathology.

Jose R. Solis, M.D., Research Fellow in Pathology.

TINRAT STITNIMANKARN, M.D., Research Fellow in Pathology (appointment expired September 30, 1962).

ELSI R. SUTER, M.D., Research Fellow in Pathology.

JOHN F. BARLOW, M.D., Teaching Fellow in Pathology.

ALCIUN D. BENNETT, M.B., CH.B., Teaching Fellow in Pathology.

CHETTY A. BHAKTAVIZIAM, M.D., Teaching Fellow in Pathology (appointment expired December 31, 1962).

JOHN B. BLENNERHASSETT, M.B., CH.B., Teaching Fellow in Pathology.

ROBERT A. COOPER, JR., M.D., Teaching Fellow in Pathology. Sheldon Cooperman, M.D., Teaching Fellow in Pathology.

JOHN E. CRAIGHEAD, M.D., Teaching Fellow in Pathology.

EDWARD O. Fox, M.D., Teaching Fellow in Pathology.

LEWIS P. JAMES, JR., M.D., Teaching Fellow in Pathology.

HUBERT JOCKIN, M.D., Teaching Fellow in Pathology.

HERBERT I. KRICKSTEIN, M.D., Teaching Fellow in Pathology.

GEORGE F. KWASS, M.D., Teaching Fellow in Pathology.

PAUL A. LEAP, M.D., Teaching Fellow in Pathology.

HOWARD S. LEVIN, M.D., Teaching Fellow in Pathology (from September 1, 1962).

RICHARD R. LINDQUIST, M.D., Teaching Fellow in Pathology.

HARRY L. McCombs, M.D., Teaching Fellow in Pathology.

PEN-MING L. MING, M.D., Teaching Fellow in Pathology.

PIER F. PACI, M.D., Teaching Fellow in Pathology.

LIVIA H. REV-KURY, M.D., Teaching Fellow in Pathology.

VICTOR J. ROSEN, JR., M.D., Teaching Fellow in Pathology.

RICHARD W. SAGEBIEL, M.D., Teaching Fellow in Pathology (from September 1, 1962).

CHARLES H. SANDER, M.D., Teaching Fellow in Pathology.

MASANORI SHIRAKI, M.D., Teaching Fellow in Pathology.

GEORGE T. SMITH, M.D., Teaching Fellow in Pathology.

ZYGMUNT M. TOMKIEWICZ, M.D., Teaching Fellow in Pathology.

PATRICK C. J. WARD, M.B., CH.B., Teaching Fellow in Pathology.

EDWARD D. WILLIAMS, M.B., CH.B., Research Fellow in Pathology (from November 1, 1962).

Hubert J. Wolfe, M.D., Teaching Fellow in Pathology.

Affiliated:

DAVID G. COGAN, M.D., Professor of Ophthalmology, and Director of the Howe Laboratory of Ophthalmology.

EDWARD H. KASS, M.D., Ph.D., Associate Professor of Bacteriology and Immunology.

JOHN C. SNYDER, M.D., Professor of Public Health Bacteriology, and Dean of the School of Public Health.

STEPHEN B. ANDRUS, M.D., Assistant Professor of Pathology in the Department of Nutrition, S.P.H.

PAUL GOLDHABER, D.D.S., Associate Professor of Periodontology, and Tutor in Dental Science.

Byron H. Waksman, M.D., Assistant Professor of Bacteriology and Immunology at the Massachusetts General Hospital.

CAROLYN COHEN, Ph.D., Research Associate in Biological Chemistry.

Shou-Cheng J. Fu, Ph.D., Research Associate in Biological Chemistry.

Lewis T. Mann, Jr., Research Associate in Biological Chemistry. Mervyn Israel, Ph.D., Research Associate in Biological Chemistry.

Required Course

Pathology A. Second Year. — The second year course in pathology is planned as a systematic survey of pathology. It consists of lectures, laboratory study of pathologic histology and demonstrations of gross

PATHOLOGY

pathologic material, partly from fixed specimens drawn from the Warren Museum, but more extensively from demonstrations of fresh autopsy and surgical material brought from the laboratories of the affiliated hospitals. Students visit the Pathology Laboratories of the Boston City Hospital, Massachusetts General Hospital, Peter Bent Brigham Hospital, Children's Hospital, Beth Israel Hospital, the Free Hospital for Women, the New England Deaconess Hospital, Boston Lying-in Hospital and the South Huntington Avenue Veterans Hospital, for participation in performance of autopsies.

Lectures are given three days in the week by the staff. The course is divided roughly, though not sharply, into general and special pathology, covering in the first part of the year basic pathologic processes, such as tissue injury and repair, inflammation, tissue responses to specific infectious agents and neoplasia. Owing to the revision of the second year curriculum, special pathology is now integrated with the other second year courses and designated as "Pathologic Physiology." Seven organs or systems will be thus considered during the present academic year: hematopoietic system, kidney, cardiovascular system, respiratory system, gastro-intestinal system, endocrine system and nervous system. The pathology of the eye, oral cavity and vitamin deficiencies are covered in collaboration with other departments of the University.

Courses in parasitology and neuropathology are given separately by the Department of Tropical Public Health of the Harvard School of Public Health and the Department of Neurology and Psychiatry, respectively, but under the nominal jurisdiction of this Department. These and the course in clinical pathology under the direction of the Department of Medicine are part of the integrated course "Pathologic Physiology."

SECOND YEAR

HOURS

Lectures, Dr. Hertig and Associates. Laboratory work. Dr. Hertig and Associates.

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Fourth Year Elective Courses

- I. Advanced Pathology. Dr. Castleman. M.G.H. Whole course, all day.
- 2. Advanced Pathology. Dr. G. K. Mallory, B.C.H. Whole course, all day.

- 3. Advanced Pathology. Dr. Dammin, P.B.B.H. Whole course, all day.
- 4. The Pathology of the Endocrine Diseases. Dr. S. WARREN. N.E.D.H. Whole course, all day.
- 5. The Pathology of Tumors. Dr. S. WARREN. N.E.D.H. Whole course, all day.
- 6. Advanced Pathology. Dr. FARBER. C.H. Whole course, all day.
- 7. Advanced Pathology. Dr. Freiman. B.I.H. Whole course, all day.
- 8. The Pathology of Obstetrics. Dr. J. M. CRAIG. B.L.I.H. Whole course, all day.
- 9. The Pathology of Gynecology. Dr. J. M. Craig. F.H.W. Whole course, all day.

PEDIATRICS

DEPARTMENT OF PEDIATRICS

- CHARLES A. JANEWAY, M.D., A.M. (hon.), Thomas Morgan Rotch Professor of Pediatrics, and Head of the Department at The Children's Hospital.
- NATHAN B. TALBOT, M.D., Professor of Pediatrics, and Head of the Department at the Massachusetts General Hospital.
- Louis K. Diamond, M.D., Professor of Pediatrics at the Children's Hospital (from January 1, 1963).
- CLEMENT A. SMITH, M.D., A.M. (hon), Professor of Pediatrics at the Boston Lying-in Hospital (from January 1, 1963), and Chairman of the Executive Committe of the Departments of Pediatrics.
- RANDOLPH K. BYERS, M.D., Associate Clinical Professor of Pediatrics.
- STEWART H. CLIFFORD, M.D., Associate Clinical Professor of Pediatrics.
- CHARLES D. COOK, M.D., Associate Clinical Professor of Pediatrics (from January 1, 1963) and Tutor in Medical Science.
- Louis K. Diamond, M.D., Associate Professor of Pediatrics at The Children's Hospital (through December 31, 1962).
- ALEXANDER S. NADAS, M.D., Associate Clinical Professor of Pediatrics.
- HARRY SHWACHMAN, M.D., Associate Clinical Professor of Pediatrics.
- CLEMENT A. SMITH, M.D., A.M. (hon.), Associate Professor of Pediatrics at the Boston Lying-in Hospital (through December 31, 1962).
- Fred H. Allen, Jr., M.D., Assistant Clinical Professor of Pediatrics.
- WILLIAM BERENBERG, M.D., Assistant Clinical Professor of Pediatrics.
- CHARLES D. COOK, M.D., Assistant Professor of Pediatrics (through December 31, 1962).

JOHN D. CRAWFORD, M.D., Assistant Professor of Pediatrics, and Tutor in Medical Science.

JOHN F. CRIGLER, JR., M.D., Assistant Professor of Pediatrics.

JOHN A. V. DAVIES, M.D., Assistant Clinical Professor of Pediatrics.

R. CANNON ELEY, M.D., Assistant Clinical Professor of Pediatrics.

PARK S. GERALD, M.D., Assistant Professor of Pediatrics at the Children's Hospital.

DAVID GITLIN, M.D., Assistant Professor of Pediatrics.

ROBERT J. HAGGERTY, M.D., Assistant Professor of Pediatrics.

Benedict F. Massell, M.D., Assistant Clinical Professor of Pediatrics.

RALPH A. Ross, M.D., Assistant Clinical Professor of Pediatrics. James R. Gallagher, M.D., Lecturer on Pediatrics.

ROBERT B. BERG, M.D., Associate in Pediatrics at the Beth Israel Hospital.

LEO B. BURGIN, M.D., Clinical Associate in Pediatrics.

JAMES E. DRORBAUGH, M.D., Clinical Associate in Pediatrics.

Francis X. Fellers, M.D., Associate in Pediatrics.

HENRY E. GALLUP, M.D., Clinical Associate in Pediatrics.

Anna J. Hauck, M.D., Clinical Associate in Pediatrics.

Samuel L. Katz, M.D., Associate in Pediatrics at the Beth Israel Hospital and Tutor in Medical Science.

CESARE T. LOMBROSO, M.D., Clinical Associate in Pediatrics (through August 31, 1962).

ROBERT P. MASLAND, JR., M.D., Clinical Associate in Pediatrics.

HARRY L. MUELLER, M.D., Clinical Associate in Pediatrics.

RICHMOND S. PAINE, M.D., Associate in Pediatrics at The Children's Hospital (resigned September 30, 1962).

DAVID W. SHERWOOD, M.D., Clinical Associate in Pediatrics.

DOROTHY B. VILLEE, M.D., Associate in Pediatrics.

SYDNEY S. GELLIS, M.D., Lecturer on Pediatrics.

SIDNEY KIBRICK, Ph.D., M.D., Lecturer on Pediatrics.

Louis Weinstein, Ph.D., M.D., Lecturer on Infectious Diseases.

IRENA ANTONOWICZ, M.S., Research Associate in Pediatrics (on leave July 1, 1962 through June 30, 1963).

PEDIATRICS

DEWITT C. BALDWIN, JR., Research Associate in Pediatrics.

PATRICIA CHARACHE, M.D., Research Associate in Pediatrics.

FELIX A. CORDOBA, M.D., Research Associate in Pediatrics (September 1, 1962 through January 15, 1963).

ALLEN C. CROCKER, M.D., Research Associate in Pediatrics.

MARY L. S. EFRON, M.D., Research Associate in Pediatrics.

Enrique Galan, M.D., Research Associate in Pediatrics.

NORMAN I. GOLD, Ph.D., Research Associate in Biological Chemistry in the Department of Pediatrics.

Daniel Katznelson, M.D., Research Associate in Pediatrics.

JACOB G. MICHAEL, Ph.D., Research Associate in Bacteriology and Immunology in the Department of Pediatrics.

ROBERT G. MONROE, M.D., Research Associate in Pediatrics.

MARVIN SNIDER, Ph.D., Research Associate in Psychology in the Department of Pediatrics.

Edith M. Taylor, Ph.D., Research Associate in Pediatrics.

Donald M. Allen, M.D., Instructor in Pediatrics (on leave October 1, 1962 through June 30, 1963).

OLGA E. ALLERS, M.D., Instructor in Pediatrics.

THOMAS B. BRAZELTON, M.D., Instructor in Pediatrics.

JOHN K. BRINES, M.D., Instructor in Pediatrics.

WILLIAM D. COCHRAN, M.D., Instructor in Pediatrics.

JOHN P. CONNELLY, M.D., Instructor in Pediatrics.

KAREL J. DE HAAS, M.D., Instructor in Pediatrics.

WILLIAM A. DICKSON, M.D., Instructor in Pediatrics.

WILLIAM R. DORSEY, M.D., C.M., Instructor in Pediatrics.

EDWARD C. DYER, M.D., Instructor in Pediatrics.

LEROY L. ELDREDGE, JR., M.D., Instructor in Pediatrics.

LAWRENCE J. ESSEMBER, M.D., Instructor in Pediatrics.

Audrey E. Evans, M.D., (Equiv.), Instructor in Pediatrics.

Albert A. Frank, M.D., Instructor in Pediatrics.

ROBERT N. GANZ, M.D., Instructor in Pediatrics.

SIDNEY GREEN, M.D., Instructor in Pediatrics.

JEROME A. GRUNT, Ph.D., M.D., Instructor in Pediatrics.

Sprague W. Hazard, M.D., Instructor in Pediatrics.

ALLEN M. HILL, M.D., Instructor in Pediatrics.

JOHN P. HUBBELL, JR., M.D., Instructor in Pediatrics.

PAUL G. HUGENHOLT, M.D., Instructor in Pediatrics.

MAURICE N. KAY, M.D., Instructor in Pediatrics.

RICHARD B. KEARSLEY, M.D., Instructor in Pediatrics.

SHERWIN V. KEVY, M.D., Instructor in Pediatrics.

ALEXANDER S. MACDONALD, JR., M.D., Instructor in Pediatrics.

Francis C. McDonald, M.D., Instructor in Pediatrics.

JOSEPH J. McGOVERN, M.D., Instructor in Pediatrics.

ROGER J. MEYER, M.D., Instructor in Pediatrics (resigned October 15, 1962).

Anna T. Mitus, M.D., Instructor in Pediatrics.

ROBERT T. MOULTON, M.D., Instructor in Pediatrics.

Otto S. Nau, Jr., M.D., Instructor in Pediatrics.

JULIAN L. PEARLMAN, M.D., Instructor in Pediatrics.

THOMAS C. PEEBLES, M.D., Instructor in Pediatrics.

WILLIAM PFEFFER, JR., M.D., Instructor in Pediatrics.

Daniel R. Rectanus, M.D., Instructor in Pediatrics.

GERTRUD C. REYERSBACH, M.D., Instructor in Pediatrics.

ROBERT H. RICHIE, JR., M.D., Instructor in Pediatrics.

JOHN S. ROBEY, M.D., Instructor in Pediatrics.

FRED S. ROSEN, M.D., Instructor in Pediatrics.

ARTHUR J. SALISBURY, M.D., Instructor in Pediatrics.

ROBERT T. Sceery, M.D., Instructor in Pediatrics.

EDWARD M. SEARS, M.D., Instructor in Pediatrics.

NASROLLAH T. SHAHIDI, M.D., Instructor in Pediatrics (appointment expired December 31, 1962).

GERALD B. SHATTUCK, M.D., Instructor in Pediatrics.

S. Norman Sherry, M.D., Instructor in Pediatrics.

HYMAN SHRAND, M.B., Ch.B., Instrctor in Pediatrics (resigned August 31, 1962).

LENDON SNEDEKER, M.D., M.P.H., Instructor in Pediatrics.

Juan F. Sotos, M.D., Instructor in Pediatrics (resigned December 31, 1962).

JOHN A. SPARGO, M.D., Instructor in Pediatrics.

RUDOLF TOCH, M.D., Instructor in Pediatrics.

WILLIAM J. TURTLE, M.D., Instructor in Pediatrics.

PEDIATRICS

JOHN W. G. TUTHILL, M.D., Instructor in Pediatrics.

WILHELMINA VAN DYKE, M.D., Instructor in Pediatrics.

JACOB WALLACE, M.D., Instructor in Pediatrics.

WILLIAM D. WINTER, JR., M.D., Instructor in Pediatrics.

ELEONORE C. ZAUDY, M.D., Instructor in Pediatrics.

ALLA G. ZAVER, M.B., B.S., Instructor in Pediatrics.

WILLIAM J. ADELSON, M.D., Assistant in Pediatrics.

Donald J. Annino, M.D., Assistant in Pediatrics.

IRVING W. BAILIT, M.D., Assistant in Pediatrics.

EUAN T. BLANCH, M.D., Assistant in Pediatrics.

JAMES J. A. CAVANAUGH, M.D., Assistant in Pediatrics.

KELLEY K. DAVIS, M.D., Assistant in Pediatrics.

STEPHEN M. FRAWLEY, M.D., Assistant in Pediatrics.

ELIZABETH A. GREGORY, M.D., Assistant in Pediatrics.

MILTON S. GROSSMAN, M.D., Assistant in Pediatrics.

LEON E. KRUGER, M.D., Assistant in Pediatrics.

DUNCAN H. MACNAMEE, M.D., Assistant in Pediatrics.

Frank B. Magill, M.D., Assistant in Pediatrics (from September 16, 1962).

Myron Morris, Ph.D., M.D., Assistant in Pediatrics.

LAWRENCE S. Morse, M.D., Assistant in Pediatrics.

ALICE C. NAUEN, M.D., Assistant in Pediatrics.

CHARLOTTE G. NEUMANN, M.D., Assistant in Pediatrics.

ROBERT J. ORME, M.D., Assistant in Pediatrics.

Joseph Osborne, M.D., Assistant in Pediatrics.

SALVATORE PELARGONIO, M.D., Assistant in Pediatrics.

HOWARD J. POTTER, M.D., Assistant in Pediatrics.

OLIVER F. RODDEY, M.D., Assistant in Pediatrics (from October 1, 1962).

MURRAY K. ROSENTHAL, M.D., Assistant in Pediatrics.

HERBERT L. RUBEN, M.D., Assistant in Pediatrics.

JORDAN S. RUBOY, M.D., Assistant in Pediatrics.

GEORGE L. SIEGEL, A.B., Assistant in Pediatrics.

HARRY B. STULTS, JR., M.D., Assistant in Pediatrics.

GEORGE H. TAFT, M.D., Assistant in Pediatrics.

MICHAEL P. TRISTAN, M.D., Assistant in Pediatrics.

HAROLD J. WHEELER, M.D., Assistant in Pediatrics.

MARTIN K. WHITE, M.D., Assistant in Pediatrics (from November 1, 1962).

THOMAS J. WHITFIELD, 3RD., M.D., Assistant in Pediatrics.

ALAN ZISKIND, M.D., Assistant in Pediatrics.

Alberto A. Abadi, Equiv. of M.D., Research Fellow in Pediatrics (July 1 through December 31, 1962).

JOEL J. ALPERT, M.D., Research Fellow in Pediatrics.

Francisco J. Amezcua, M.D., Research Fellow in Pediatrics.

JACQUELINE T. AMEZCUA, M.D., Research Fellow in Pediatrics.

Carlos Beltran-Paz, Medico Cirujano, Research Fellow in Pediatrics (from September 1, 1962).

NIHAT BILGINTURAN, M.D., Research Fellow in Pediatrics.

ROBERT W. BOSTON, M.D., Research Fellow in Pediatrics.

MARTHA A. CARPENTER, M.D., Research Fellow in Pediatrics.

JENNIFER D. CARTRIGHT, M.B., Research Fellow in Pediatrics.

DAVID H. CARVER, M.D., Research Fellow in Pediatrics.

EARL M. COOPERMAN, M.D., Research Fellow in Pediatrics.

Russell D. Cunningham, M.D., Research Fellow in Pediatrics.

PHILIP FIREMAN, M.D., Research Fellow in Pediatrics.

WALTER J. GAMBLE, M.D., Research Fellow in Pediatrics.

RAUL GAMBOA, M.D., Research Fellow in Pediatrics.

ALINA GOLCZYK, M.D., Research Fellow in Pediatrics (appointment expires March 31, 1963).

ROBERT P. HARDMAN, M.D., Research Fellow in Pediatrics (appointment expired July 31, 1962).

CHRISTIAN HERRERA, M.D., Research Fellow in Pediatrics.

EDWARD J. HERSHGOLD, M.D., Research Fellow in Pediatrics (resigned December 31, 1962).

DARCY W. O. HUGHES, M.B., B.S., Research Fellow in Pediatrics.

ELLEN S. S. S. KANG, M.D., Research Fellow in Pediatrics.

Joseph L. Kennedy, Jr., M.D., Research Fellow in Pediatrics.

Kon T. Khaw, M.D., M.P.H., Research Fellow in Pediatrics.

Howard S. King, M.D., Research Fellow in Pediatrics (from September 1, 1962).

CHRISTOPHER G. C. LAFARGE, M.D., Research Fellow in Pediatrics.

PEDIATRICS

PINCHAS LERMAN, M.D., Research Fellow in Pediatrics.

HENRY LEVISON, M.D., Research Fellow in Pediatrics.

ARTHUR M. LEVY, M.D., Research Fellow in Pediatrics.

Anne V. C. Lloyd, M.B., B.S., Research Fellow in Pediatrics (appointment expired December 31, 1962).

MARGARET H. MACGILLIVRAY, M.D., Research Fellow in Pediatrics.

JANE C. MACLEOD, M.D., Research Fellow in Pediatrics.

Erin M. Mehta, M.B., B.S., Research Fellow in Pediatrics.

Etsuro Motoyama, M.D., Research Fellow in Pediatrics (from November 1, 1962).

DONALD M. MUIRHEAD, JR., M.D., Research Fellow in Pediatrics.

KIARASH NAFICY, M.D., Research Fellow in Pediatrics.

JOSEPH L. NAIMAN, M.D., Research Fellow in Pediatrics.

Francis F. Nakamura, M.D., Research Fellow in Pediatrics.

BEALE H. ONG, M.D., Research Fellow in Pediatrics.

MARCELLO ORZALESI, M.D., Research Fellow in Pediatrics (appointment expires March 31, 1963).

FRANK A. OSKI, M.D., Research Fellow in Pediatrics.

SINASI OZSOYLU, M.D., Research Fellow in Pediatrics.

Berry I. Pless, M.D., Research Fellow in Pediatrics (from January 1, 1963).

HERNANDO POSADA, M.D., Research Fellow in Pediatrics.

ALBERTO PRADILLA, M.D., Research Fellow in Pediatrics.

Louis S. Prod'hom, Ph.D., M.D., Research Fellow in Pediatrics (appointment expired September 30, 1962).

CHRISTOPHER R. RAINIER-POPE, M.B., CH.B., Research Fellow in Pediatrics.

GOTIMUKULA P. RAO, M.D., Research Fellow in Pediatrics (appointment expired August 31, 1962).

ARTHUR L. ROSE, M.B., CH.B., Research Fellow in Pediatrics.

Krishna M. Saxena, M.D., Research Fellow in Pediatrics (resigned August 31, 1962).

DENNIS SLONE, M.B., CH.B., Research Fellow in Pediatrics.

Jose E. M. R. Sousa, M.D., Research Fellow in Pediatrics (appointment expired January 31, 1963).

LEONARD B. STRANG, M.B., B.S., Research Fellow in Pediatrics (appointment expired August 23, 1962).

HERBERT S. STRAUSS, M.D., Research Fellow in Pediatrics.

SE Mo Suh, M.D., Research Fellow in Pediatrics (appointment expired December 31, 1962).

RAJENDRA TANDON, M.D., Research Fellow in Pediatrics.

JOHN TAUB, M.D., Research Fellow in Pediatrics.

OTTO G. THILENIUS, M.D., Ph.D., Research Fellow in Pediatrics. IRVING UMANSKY, M.D., Research Fellow in Pediatrics.

CATHERINE S-C. WANG, M.D., Research Fellow in Pediatrics.

JOHN A. WILLOUGHBY, M.D., Research Fellow in Pediatrics.

JUNICHI YASUDA, M.D., Research Fellow in Pediatrics (from September 1, 1962).

THOMAS W. ADAMS, M.D., Teaching Fellow in Pediatrics.

GEORGE E. CASSADY, 2ND., M.D., Teaching Fellow in Pediatrics.

JOHN A. DODGE, M.B., CH.B., Teaching Fellow in Pediatrics (appointment expired November 30, 1962).

MURRAY FEINGOLD, M.D., Teaching Fellow in Pediatrics.

GERALD W. FERNALD, M.D., Teaching Fellow in Pediatrics.

ALLAN GOLDBLATT, M.D., Teaching Fellow in Pediatrics (appointment expired December 31, 1962).

Montgomery C. Hart, M.D., Teaching Fellow in Pediatrics.

JAMES R. HUGHES, M.D., Teaching Fellow in Pediatrics.

RICHARD A. KATZ, M.D., Teaching Fellow in Pediatrics (from December 1, 1962).

ROBERT M. KLINE, M.D., Teaching Fellow in Pediatrics.

STEPHEN M. MARCY, M.D., Teaching Fellow in Pediatrics.

GABRIEL B. MIRKIN, M.D., Teaching Fellow in Pediatrics.

STEPHEN L. REYNOLDS, M.D., Teaching Fellow in Pediatrics.

DAVID H. SMITH, M.D., Teaching Fellow in Pediatrics.

LESTER F. SOYKA, M.D., Teaching Fellow in Pediatrics.

JOHN T. TRUMAN, M.D., Teaching Fellow in Pediatrics.

John L. Wilkins, M.B., B.S., Teaching Fellow in Pediatrics (арpointment expired August 31, 1962).

PEDIATRICS

Affiliated:

RAYMOND D. ADAMS, M.D., Bullard Professor of Neuropathology.

Sidney Farber, M.D., Professor of Pathology at the Children's Hospital Medical Center.

GEORGE E. GARDNER, M.D., Clinical Professor of Psychiatry.

EDWARD B. D. NEUHAUSER, M.D., Clinical Professor of Radiology.

WILLIAM M. SCHMIDT, M.D., Professor of Maternal and Child Health, S.P.H.

L. Lahut Uzman, M.D., Bronson Crothers Professor of Neurology (died November 7, 1962).

THOMAS H. WELLER, M.D., Richard Pearson Strong Professor of Tropical Public Health, S.P.H.

PHILIP R. Dodge, M.D., Assistant Professor of Neurology at the Massachusetts General Hospital.

ARTHUR J. LINENTHAL, M.D., Assistant Clinical Professor of Medicine.

JANET W. McArthur, M.D., Assistant Clinical Professor of Medicine.

Morton N. Swartz, M.D., Assistant Professor of Medicine at the Massachusetts General Hospital.

PETER H. WOLFF, M.D., Associate in Psychiatry at The Children's Hospital.

Frank Albert Howard, M.D., Research Associate in Pharmacology, and Tutor in Medical Science.

Tully Benaron, M.D., Instructor in Psychiatry.

ALLAN L. FRIEDLICH, M.D., Instructor in Medicine.

John H. Lamont, M.D., Instructor in Psychiatry.

MARY L. L. SCHOLL, M.D., Instructor in Neurology.

DEXTER M. BULLARD, JR., M.D., Assistant in Psychiatry.

JOHN JOSEPH DRISCOLL, M.D., Assistant in Obstetrics and Gynecology.

RICHARD GALDSTON, M.D., Assistant in Psychiatry.

Required Courses

PEDIATRICS A. Second Year. — A few lectures are given during the second year to familiarize the students with the study of chil-

dren before they come into contact with patients. In this series are discussed the physiological readjustments of neonatal life, the care of the well child, and the history and physical examination of the sick child.

PEDIATRICS B. Third Year. — Eleven lectures are given in which the character of pediatrics is described and certain of its outstanding features are defined.

Section teaching: Each section, during its assignment to The Children's Hospital Medical Center for thirty-two days, receives instruction in pediatrics, as well as in the surgery, and orthopaedic surgery of childhood. Each group of three students is assigned to the medical out-patient department and wards for fifteen periods of three hours each, where under the supervision of their instructor they receive actual experience in history-taking, physical examination and the care of infants and children. Conferences and clinics on important aspects of pediatrics form part of the course. One half day per week is devoted to demonstrations and practice in the care of the normal infant and child and other exercises are devoted to pathological conferences and special clinics.

Pediatrics C. Fourth Year. — The fourth year work consists of a month of instruction, either at the Children's Service of the Massachusetts General Hospital or at The Children's Hospital Medical Center. The students act as clinical clerks on the wards and receive instruction in infectious diseases at the New England Center Hospital once a week. Instruction in pediatrics of the newborn infant is given during the fourth year work in obstetrics at the Boston Lying-in Hospital.

Clinical lectures.	C.H.M.C.	Second half-year.	4
		THIRD YEAR	
Clinical lectures.	C.H.M.C.	First half-year.	11
Section teaching.	C.H.M.C.	Throughout the year.	63

SECOND YEAR

HOURS

FOURTH YEAR

C1. Clinical Clerkship. Dr. Janeway and Associates. C.H.M.C. 144 C2. Clinical Clerkship. Dr. Talbot and Associates. M.G.H. 144

PEDIATRICS

Neonatal Pediatrics. Drs. Smith, Clifford and Associates, is included in Fourth Year Obstetrics and Gynecology.

Fourth Year Elective Courses

- 3. Advanced Pediatrics. Drs. Janeway, Diamond, Smith and Associates. C.H.M.C. and B.L.I.H. Whole course, all day. Opportunities are offered in Child Health, General Pediatrics, Neoplastic Diseases, Metabolic Disease, Endocrinology, Adolescent Medicine, Neonatal Pediatrics, Neurology, Hematology, and Cardiology.
- 4. Advanced Pediatrics. Drs. Talbot, Crawford and Associates. M.G.H. Whole course, all day. Opportunities are offered in General Pediatrics, Endocrinology, Metabolic Disease, Child Behavior, and Neurology.
- 5. Child Psychiatry. a. Dr. Lamont and Associates M.G.H. Whole course, all day (same course as Psychiatry 8). b. Dr. Gardner and Associates. C.H.M.C. Judge Baker. Whole course, all day (same course as Psychiatry 10).
- 7. Infectious Diseases. Dr. Weinstein. N.E.C.H. Whole course, all day.

Voluntary Course

31. Family Medicine. Drs. Haggerty, Howard, Driscoll, Bullard, Alpert, Wolff, and Willoughby. Tuesday and Thursday afternoons throughout the year. Limited to 32 third year students.

DEPARTMENT OF PHARMACOLOGY

- OTTO KRAYER, M.D., A.M. (hon.), M.D. (hon.), Charles Wilder Professor of Pharmacology, and Head of the Department.
- Stephen W. Kuffler, M.D., A.M. (hon.), Professor of Neurophysiology and Neuropharmacology.
- DAVID H. HUBEL, M.D., Associate Professor of Neurophysiology and Neuropharmacology.
- PAUL L. Munson, Ph.D., Associate Professor of Pharmacology in the School of Dental Medicine.
- Ullrich G. Trendelenburg, M.D., Ph.D., Associate Professor of Pharmacology (from January 1, 1963).
- WERNER E. FLACKE, M.D., Assistant Professor of Pharmacology.
- EDWIN J. FURSHPAN, Ph.D., Assistant Professor of Neurophysiology and Neuropharmacology.
- OLEG JARDETZKY, M.D., Ph.D., Assistant Professor of Pharmacology.
- Martin Lubin, M.D., Ph.D., Assistant Professor of Pharmacology.
- JEAN M. MARSHALL, Ph.D., Assistant Professor of Pharmacology.
- Ullrich G. Trendelenburg, M.D., Ph.D., Assistant Professor of Pharmacology (July 1 through December 31, 1962).
- Frederick C. Uhle, Ph.D., Assistant Professor of Chemistry in the Department of Pharmacology.
- NORMAN WEINER, M.D., Assistant Professor of Pharmacology.
- Torsten N. Wiesel, M.D., Assistant Professor of Neurophysiology and Neuropharmacology.
- JOHN R. BLINKS, M.D., Associate in Pharmacology (on leave July 1, 1962 through June 30, 1963).
- WALTER R. BURACK, M.D., Associate in Pharmacology, and Tutor in Medical Science.
- PHILIP F. HIRSCH, Ph.D., Associate in Pharmacology in the School of Dental Medicine.
- WILLIAM H. MORSE, Ph.D., Associate in Psychology in the De-

PHARMACOLOGY

- partment of Pharmacology (on leave February 15 through June 30, 1963).
- DAVID D. POTTER, Ph.D., Associate in Neurophysiology and Neuropharmacology.
- Hugues J. P. Ryser, M.D., Associate in Pharmacology.
- HERBERT WELLS, D.M.D., Associate in Pharmacology in the School of Dental Medicine and Tutor in Medical Science.
- ROBERT B. Bosler, Research Associate in Neurophysiology and Neuropharmacology.
- Frank A. Howard, M.D., Research Associate in Pharmacology and Tutor in Medical Science.
- GORDON R. JULIAN, Ph.D., Research Associate in Pharmacology.
- ROGER T. KELLEHER, Ph.D., Research Associate in Psychology in the Department of Pharmacology.
- ROBERT KILPATRICK, M.B., CH.B., Research Associate in Pharmacology in the School of Dental Medicine (appointment expired August 15, 1962).
- Johannes Schmier, M.D., Research Associate in Pharmacology (appointment expired October 31, 1962).
- RICHARD J. CROUT, M.D., Instructor in Pharmacology.
- PAUL R. DRASKOCZY, M.D., Instructor in Pharmacology.
- HERBERT L. Ennis, Ph.D., Instructor in Pharmacology.
- JAN KOCH-WESER, M.D., Instructor in Pharmacology and Tutor in Medical Science.
- Edward A. Kravitz, Ph.D., Instructor in Neurophysiology and Neuropharmacology.
- Christopher D. Thron, M.D., Instructor in Pharmacology (from August 1, 1962).
- Joseph L. Borowitz, Ph.D., Research Fellow in Pharmacology (from January 1, 1963).
- JACK DIAMOND, Ph.D., Research Fellow in Neurophysiology and Neuropharmacology (resigned September 30, 1962).
- VLADISLAV EYBL, M.D., Research Fellow in Pharmacology (from December 1, 1962).
- ALEJANDRO ILLANES, M.D., Research Fellow in Pharmacology.
- DAVID H. KESSEL, Ph.D., Research Fellow in Pharmacology.

GORDON K. MACLEOD, M.D., Research Fellow in Pharmacology. Antonio J. Muskus, Doctor en Farmacia, Research Fellow in

Pharmacology.

John G. Nicholls, Ph.D., M.B., B.S., Research Fellow in Neurophysiology and Neuropharmacology (from September 1, 1962).

TAI-CHAN PENG, M.D., Research Fellow in Pharmacology in the School of Dental Medicine.

Ernst E. Seifen, M.D., Research Fellow in Pharmacology.

MARCUS B. WALLER, Ph.D., Research Fellow in Pharmacology (resigned September 30, 1962).

Required Course

Pharmacology A. Second Year. — The course in Pharmacology consists of lectures, demonstrations, experimental laboratory exercises and conferences. Concepts of general importance in pharmacology and toxicology are presented and the opportunity is provided for students to become acquainted with important drugs. Emphasis is placed on those actions of pharmacological agents which help in understanding the disordered physiology of disease and which are of importance in the rational treatment of disease. The mode of action of important drugs is discussed. In the laboratory, the student is able to become acquainted at first hand with some of the experimental facts, obtained from studies on man and animals, which provide the starting points for the analysis of pharmacological effects.

SECOND YEAR

HOURS

Lectures. Dr. Krayer and Associates. One hour, three times a week: Tuesday, Thursday and Saturday mornings, first half-year. Members of the staff of the Department of Pharmacology will continue the teaching of Pharmacology in collaboration with other departments in the integrated program of the second half-year.

Laboratory work and conferences. Dr. Krayer and Associates. Tuesday mornings, first half-year. Further exercises in Pharmacology will be conducted as part of the integrated program of the second half-year.

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PHARMACOLOGY

Fourth Year Elective Courses

20. Pharmacological Investigation on:

Cardiovascular system. Drs. Krayer, Flacke, and Blinks.

Endocrinology. Drs. Munson and Hirsch.

Behavior. Drs. Dews, Morse and Kelleher.

Molecular biology. Dr. JARDETZKY.

Bacterial and mammalian cells. Drs. Lubin and Ryser.

Autonomic ganglia. Dr. Trendelenburg.

Metabolism of tissue amines. Drs. Weiner and Burack.

Salivary glands. Dr. Wells.

21. Structural and synthetic studies on steroid and indole alkaloids. Dr. Uhle.

DEPARTMENT OF PHYSIOLOGY

EUGENE M. LANDIS, M.D., PH.D., S.M. (hon.), A.M. (hon.), George Higginson Professor of Physiology, and Head of the Department.

A. CLIFFORD BARGER, M.D., Professor of Physiology.

JOHN R. PAPPENHEIMER, Ph.D., Career Investigator of the American Heart Association, and Visiting Professor of Physiology.

*ARTHUR K. SOLOMON, Ph.D., D.PHIL., Associate Professor of Biophysics.

THOMAS H. WILSON, M.D., PH.D., A.M. (hon.), Associate Professor of Physiology.

Elwood Henneman, M.D., Assistant Professor of Physiology, and Ella Sachs Plotz Fellow in Physiology.

PETER F. CURRAN, Ph.D., Associate in Biophysics.

LEON GOLDSTEIN, Ph.D., Associate in Physiology and Tutor in Physiology.

HENRY M. GOODMAN, Ph.D., Associate in Physiology (from January 1, 1963).

S. RICHARD HEISEY, Sc.D., Associate in Physiology.

Donald L. D. Caspar, Ph.D., Research Associate in Biophysics.

VLADIMIR FENCL, M.D., Research Associate in Physiology (from October 1, 1962).

George G. Somjen, M.D., Research Associate in Physiology (from January 1, 1963).

HENRY M. GOODMAN, Ph.D., Instructor in Physiology (July 1 through December 31, 1962).

Ernest Page, M.D., Instructor in Biophysics.

VICTOR SIDEL, M.D., Instructor in Biophysics.

SERGE CARRIERE, M.D., Research Fellow in Physiology.

MARCELINO CEREIJIDO, M.D., Research Fellow in Biophysics.

JULIUS J. DEREN, M.D., Research Fellow in Physiology.

WOLFGANG EPSTEIN, M.D., Research Fellow in Biophysics.

^{*} Appointment under the Committee on Medical Research in Biophysics.

PHYSIOLOGY

ROBERT G. FAUST, Ph.D., Research Fellow in Biophysics (from September 1, 1962).

HIROSHI HAGIHIRA, M.D., Research Fellow in Physiology (appointment expired August 31, 1962).

DENYS HELD, M.D., Research Fellow in Physiology.

MILTON HOLLENBERG, M.D., Research Fellow in Physiology.

Katsuya Itahara, M.D., Research Fellow in Biophysics (from December 1, 1962).

GEORGE W. KIDDER, 3RD., PH.D., Research Fellow in Biophysics.

Hugh H. Kopald, M.D., Research Fellow in Physiology.

Duncan W. Martin, Ph.D., Research Fellow in Biophysics (from September 1, 1962).

DAVID L. MAUDE, M.D., Research Fellow in Biophysics.

Isam H. Shehadeh, M.D., Research Fellow in Biophysics (from August 1, 1962).

GEOFFREY D. THORBURN, M.B., M.S., Research Fellow in Physiology.

RAYMOND B. WUERKER, M.D., Research Fellow in Physiology.

Affiliated:

JAMES T. IRVING, Ph.D., M.D., Professor of Physiology at the Forsyth Dental Infirmary.

JEAN MAYER, Ph.D., D.Sc., Associate Professor of Nutrition, S.P.H.

Required Course

Physiology A. First Year. — Lectures are designed to acquaint the student with the more fundamental aspects of physiology and to consider in detail those portions of the subject that are essential to an understanding of the phenomena of health and disease in man.

By means of laboratory exercises the student is introduced as rapidly as possible to the observational methods and techniques available for studying function in man. Then equal emphasis is placed upon exercises illustrating in animals the experimental procedures employed for the detailed analysis of function and for the acquisition of a fundamental knowledge of physiology.

Conferences and demonstrations supplement the more formal in-

struction. Correlation with other medical sciences is stressed (see page 90).

FIRST YEAR

HOURS

Lectures and laboratory work. Drs. Barger, Curran, Goldstein, Goodman, Heisey, Henneman, Kinter, Landis, Pappen-Heimer, Solomon, and Wilson.

Fourth Year Elective Courses

20. Physiological Investigation in:

Cardiovascular and renal function. Drs. Barger, Goldstein, and Landis.

Gastro-intestinal Physiology. Dr. Wilson.

Neurophysiology. Dr. Henneman and Dr. Pappenheimer.

Endocrinology. Dr. GOODMAN.

21. Use of Isotopes in Biological Research. Dr. A. K. Solomon. Investigation not less than one full course. For admission consult Dr. Solomon directly.

PREVENTIVE MEDICINE

DEPARTMENT OF PREVENTIVE MEDICINE

- DAVID D. RUTSTEIN, M.D., Professor of Preventive Medicine, and Head of the Department (on sabbatical leave January 1 through June 30, 1963).
- DAVID J. FINNEY, Sc.D., Visiting Professor of Biomathematics in the Department of Preventive Medicine.
- OSLER L. PETERSON, M.D., Visiting Professor of Preventive Medicine.
- MARCEL-PAUL SCHUTZENBERGER, M.D., Visiting Professor of Preventive Medicine (appointment expired September 30, 1962).
- LEONARD W. CRONKHITE, JR., M.D., Lecturer on Preventive Medicine.
- SIDNEY S. LEE, M.D., Lecturer on Preventive Medicine (from January 1, 1963).
- Francis L. Mussells, M.D., C.M., Lecturer on Preventive Medicine.
- WILLIAM B. KANNEL, M.D., Clinical Associate in Preventive Medicine.
- RALPH S. PAFFENBARGER, JR., M.D., DR.P.H., Clinical Associate in Preventive Medicine.
- Murray Eden, Ph.D., Lecturer on Preventive Medicine.
- ALEXANDER M. BURGESS, JR., M.D., Research Associate in Preventive Medicine (on leave July 1, 1962 through June 30, 1963).
- THEODORE COLTON, Sc.D., Research Associate in Preventive Medicine.
- Fremont J. Lyden, Ph.D., Research Associate in Preventive Medicine (resigned September 30, 1962).
- JOHN M. NEWELL, S.D., Research Associate in Preventive Medicine.
- RITA J. NICKERSON, M.A., Research Associate in Preventive Medicine.
- WILLIAM P. CASTELLI, M.D., Research Fellow in Preventive Medicine.

WINCENTY CZARNIECKI, M.D., Research Fellow in Preventive Medicine (appointment expired September 30, 1962).

GARY D. FRIEDMAN, M.D., Research Fellow in Preventive Medicine.

Affiliated:

Ernest M. Barsamian, M.D., Instructor in Surgery. Louis Weinstein, Ph.D., M.D., Lecturer on Infectious Diseases. Jane Worcester, Dr.P.H., Professor of Biostatistics, S.P.H.

The preventive aspects of medicine and its various specialties, are taught in all departments of the Medical School, and arrangements are made for the integration of such teaching with the more formal teaching in the required course in preventive medicine. An effort is made to stress those aspects of preventive medicine which concern the practicing physician, rather than those which concern the public health officer.

Required Courses

QUANTITATIVE METHODS IN MEDICINE. Second Year. — Dr. COLTON, Dr. Eden, and Associates Twelve lectures and two laboratory seminar periods. An introduction to statistical reasoning in the evaluation of data is offered as part of the course entitled "Growth and Development." The statistical teaching includes a description of the types of data encountered in the medical literature, elementary probability theory, problems of sampling and the logical basis for drawing conclusions from evidence. Assistance in this teaching will be given by members of several of the departments in the School of Medicine and of the Department of Biostatistics in the School of Public Health.

Students with considerable background in mathematics and statistics will be considered for a special section of this course in which greater attention will be given to the application of mathematics to biological problems.

PREVENTIVE MEDICINE A. Third Year. — The course in preventive medicine consists of clinics, lectures and symposia. The preventive aspects of clinical medicine are correlated with information in the fields of epidemiology, biostatistics, social medicine, occupational medicine, medical economics and environmental sanitation.

PREVENTIVE MEDICINE

PREVENTIVE MEDICINE C. Fourth Year. — A Health Resources Survey, evaluating community facilities for the total medical care of specified patients, is required of all students.

THIRD YEAR

HOURS

Clinics, symposia and lectures. Dr. Rutstein, Dr. Peterson, and Associates, in cooperation with representatives of other departments.

70

FOURTH YEAR

Health Resources Survey and individual student conference.

50

Fourth Year Elective Courses

- 1. Advanced work in Preventive Medicine and Epidemiology. Dr. RUTSTEIN and ASSOCIATES. This includes opportunity for one month's work in the Division of Social Medicine, Montefiore Hospital, New York City.
- 2. Man-made Diseases. Dr. HARDY and ASSOCIATES. M.G.H. and M.I.T. Whole course, all day. Limited to one student a month.

Voluntary Course

31. Design of Clinical Investigation. Dr. RUTSTEIN and ASSOCIATES. Eight 2 hour seminars in March and April. Open to third and fourth year students. Limited to fifteen students.

DEPARTMENT OF RADIOLOGY

EDWARD B. D. NEUHAUSER, M.D., Clinical Professor of Radiology. Laurence L. Robbins, M.D., Clinical Professor of Radiology. Robert Shapiro, M.D., Professor of Radiology at the Beth Israel

Hospital.

James B. Dealy, Jr., M.D., Associate Clinical Professor of Radiology, and Acting Head of the Department.

MARTIN H. WITTENBORG, M.D., Associate Clinical Professor of

Radiology.

RICHARD SCHATZKI, M.D., Assistant Clinical Professor of Radiology.

MILFORD D. SCHULZ, M.D., Assistant Clinical Professor of Radiol-

ogy.

EDWARD W. WEBSTER, Ph.D., Assistant Professor of Physics in the Department of Radiology at the Massachusetts General Hospital.

STANLEY M. WYMAN, M.D., Assistant Clinical Professor of Radiology.

STANLEY J. ADELSTEIN, M.D., Philip H. Cook Fellow in Radiology, and Associate in Anatomy.

Guilo J. D'Angio, M.D., Clinical Associate in Radiology (on leave October 1, 1962 through September 30, 1963).

JACK R. DREYFUSS, M.D., Clinical Associate in Radiology.

JOHN E. GARY, M.D., Clinical Associate in Radiology.

Joseph H. Marks, M.D., Clinical Associate in Radiology.

MAJIC S. POTSAID, M.D., Clinical Associate in Radiology.

Morris Simon, M.B., Ch.B., Clinical Associate in Radiology.

CHIU-CHEN WANG, M.D., Clinical Associate in Radiology.

George B. C. Harris, M.D., Instructor in Radiology.

MIRLE A. KELLETT, M.D., Instructor in Radiology.

ALEXANDER S. MACMILLAN, JR., M.D., Instructor in Radiology.

James M. McNeill, M.D., Instructor in Radiology.

PAUL F. J. NEW, M.B., B.S., Instructor in Radiology.

JOHN L. SOSMAN, M.D., Instructor in Radiology.

RADIOLOGY

Frederick S. Tomchik, M.D., Instructor in Radiology.

ALFRED L. WEBER, M.D., Instructor in Radiology.

JOHN F. BACON, M.D., Assistant in Radiology (from September 16, 1962).

Johan P. Bonk, M.D., Assistant in Radiology (resigned October 31, 1962).

Boris P. Bushueff, M.D., Assistant in Radiology.

John K. Cobb, M.D., Assistant in Radiology.

ROBERT E. DINSMORE, M.D., Assistant in Radiology (from October 1, 1962).

LLOYD E. HAWES, M.D., Assistant in Radiology.

RICHARD G. O'BRIEN, M.D., Assistant in Radiology.

HENRY P. PENDERGRASS, M.D., Assistant in Radiology.

KEITH R. RABINOV, M.D., Assistant in Radiology.

JAMES A. ROURKE, M.D., Assistant in Radiology (from October 1, 1962).

NORMAN L. SADOWSKY, M.D., Assistant in Radiology.

HUBERT S. SEAR, M.D., Assistant in Radiology.

Francis P. Shea, M.D., Assistant in Radiology (from October 1, 1962).

WILLIAM D. SUER, M.D., Assistant in Radiology.

MELVIN TEFFT, M.D., Assistant in Radiology (from October 1, 1962).

WALTHER T. WEYLMAN, M.D., Assistant in Radiology.

CHARLES A. GOODING, M.D., Research Fellow in Radiology (appointment expired December 31, 1962).

Peter K. Spiegel, M.D., Research Fellow in Radiology (appointment expired December 31, 1962).

JERRY R. CROTEAU, M.D., Teaching Fellow in Radiology (appointment expired December 31, 1962).

NEVA M. JOHNSON, M.B., B.S., Teaching Fellow in Radiology.

Required Courses

First Year. — Radiological instruction during the first year comprises a series of lectures, during the course in Anatomy, designed to introduce and apply the X-ray method as a means of studying gross

internal anatomy in health and disease. The practical application of these methods is extended in the Saturday clinics.

Second Year. — During the second semester of the second year, small group exercises and laboratories are conducted in conjunction with the program of correlative teaching, with emphasis on the systematic approach to X-ray interpretation and the correlation of abnormal findings with gross pathology and patho-physiology.

Third Year. — In the third year the following instruction is offered:
(a) four general lectures; an interdepartmental panel lecture on "Risk Versus Need and the Safe Conduct of Radiological Procedures", one on the Effects of Ionizing Radiation, and two on Radiation Therapy; (b) three clinical exercises; one each trimester for the purpose of correlating the major types of X-ray examination with the diagnosis and treatment of disease states; (c) informal weekly discussions, repeated each trimester for the third of the class assigned to surgery, to consider the practical application of both diagnostic and therapeutic techniques to representative surgical cases under study, and (d) eight hours of pediatric radiology.

Fourth Year Elective Course

Radiology. Drs. Dealy, P.B.B.H., Robbins, M.G.H., Shapiro, B.I.H., Neuhauser, C.M.C., Marks, N.E.D.H., Schatzki, Mt. A.H., and Bushueff, W.R.V.A.H.

SURGERY

DEPARTMENT OF SURGERY

- JACOB FINE, M.D., Professor of Surgery at the Beth Israel Hospital, and Head of the Department at the Beth Israel Hospital.
- ROBERT E. GROSS, M.D., D.Sc. (hon.), William E. Ladd Professor of Child Surgery, and Head of the Department at The Children's Hospital.
- FRANCIS D. MOORE, M.D., Moseley Professor of Surgery, Head of the Department at the Peter Bent Brigham Hospital, and Secretary to the Departments of Surgery.
- PAUL S. RUSSELL, M.D., A.M. (hon.), John Homans Professor of Surgery and Head of the Department of the Massachusetts General Hospital.
- OLIVER COPE, M.D., DR. (hon.), Professor of Surgery.
- HENRY K. BEECHER, M.D., Henry Isaiah Dorr Professor of Research and Teaching in Anaesthetics and Anaesthesia.
- J. Hartwell Harrison, M.D., Clinical Professor of Genito-Urinary Surgery.
- Donald D. Matson, M.D., Clinical Professor of Surgery.
- LEROY D. VANDAM, M.D., Clinical Professor of Anaesthesia.
- CARL W. WALTER, M.D., Clinical Professor of Surgery.
- RICHARD WARREN, M.D., Clinical Professor of Surgery.
- MARSHALL K. BARTLETT, M.D., Associate Clinical Professor of Surgery.
- EDWARD HAMLIN, JR., M.D., Associate Clinical Professor of Surgery.
- DWIGHT E. HARKEN, M.D., Associate Clinical Professor of Surgery.
- Franc D. Ingraham, M.D., Associate Professor of Surgery at The Children's Hospital.
- WYLAND F. LEADBETTER, M.D., Associate Clinical Professor of Surgery.
- WILLIAM H. SWEET, M.D., D.Sc. (hon.), Associate Professor of Surgery at the Massachusetts General Hospital.
- CLAUDE E. WELCH, M.D., Associate Clinical Professor of Surgery.

- HENRY T. BALLANTINE, JR., M.D., Assistant Clinical Professor of Surgery.
- Edgar A. Bering, Jr., M.D., Assistant Clinical Professor of Surgery.
- THOMAS W. BOTSFORD, M.D., Assistant Clinical Professor of Surgery.
- JOHN R. BROOKS, M.D., Assistant Clinical Professor of Surgery. CHILTON CRANE, M.D., Assistant Clinical Professor of Surgery.
- EDWARD D. FRANK, M.D., Assistant Professor of Surgery, and Tutor in Medical Science.
- HOWARD A. FRANK, M.D., Assistant Professor of Surgery at the Beth Israel Hospital, and Tutor in Surgery.
- HERMES C. GRILLO, M.D., Assistant Clinical Professor of Surgery.
- Sylvester B. Kelley, M.D., Assistant Clinical Professor of Surgery.
- WALTER S. KERR, JR., M.D., Assistant Clinical Professor of Surgery.
- JOHN M. KINNEY, M.D., Assistant Professor of Surgery and Henry E. Warren Fellow in Surgery.
- Donald W. MacCollum, M.D., Assistant Clinical Professor of Surgery.
- WILLIAM V. McDermott, Jr., M.D., Assistant Clinical Professor of Surgery.
- JOSEPH E. MURRAY, M.D., Assistant Clinical Professor of Surgery. George L. Nardi, M.D., Assistant Clinical Professor of Surgery.
- MELVIN P. OSBORNE, M.D., Assistant Clinical Professor of Surgery, and Acting Head of the Department at the Boston City Hospital.
- W. Bradford Patterson, M.D., Assistant Clinical Professor of Surgery.
- WILLIAM H. PEARLMAN, Ph.D., Assistant Professor of Biological Chemistry in the Department of Surgery.
- GEORGE C. PRATHER, M.D., Assistant Clinical Professor of Surgery.
- THOMAS B. QUIGLEY, M.D., Assistant Clinical Professor of Surgery.

- JOHN W. RAKER, M.D., Assistant Clinical Professor of Surgery.
- J. GORDON SCANNELL, M.D., Assistant Clinical Professor of Surgery.
- ROBERT M. SMITH, M.D., Assistant Clinical Professor of Anaesthesia.
- Donald P. Todd, M.D., Assistant Clinical Professor of Anaesthesia.
- WALTER R. WEGNER, M.D., Assistant Clinical Professor of Surgery.
- WILLIAM G. AUSTEN, M.D., Associate in Surgery at the Massachusetts General Hospital (from January 1, 1963).
- BENJAMIN A. BARNES, M.D., Clinical Associate in Surgery.
- HENRIK H. BENDIXEN, M.D., Clinical Associate in Anaesthesia.
- WILLIAM F. BERNHARD, M.D., Clinical Associate in Surgery.
- JOHN F. BURKE, M.D., Clinical Associate in Surgery, and Tutor in Medical Science.
- Bradford Cannon, M.D., Clinical Associate in Surgery.
- SAMUEL GILMAN, M.D., Clinical Associate in Anaesthesia.
- PHILLIPS HALLOWELL, M.D., Clinical Associate in Anaesthesia.
- Louis Hermanson, M.D., Clinical Associate in Surgery.
- LUTHER A. LONGINO, M.D., Clinical Associate in Surgery.
- VERNON H. MARK, M.D., Associate in Surgery at the Massachusetts General Hospital.
- S. RICHARD MUELLNER, M.D., Clinical Associate in Surgery.
- Ellison C. Pierce, Jr., M.D., Clinical Associate in Anaesthesia.
- John V. Pikula, M.D., Clinical Associate in Surgery.
- GEORGE S. RICHARDSON, M.D., Clinical Associate in Surgery.
- CHESTER B. Rosoff, M.D., Clinical Associate in Surgery and Tutor in Medical Science.
- ALEXANDER M. RUTENBURG, M.D., Associate in Surgery at the Beth Israel Hospital, and Tutor in Medical Science.
- ROBERT S. SHAW, M.D., Associate in Surgery at the Massachusetts General Hospital.
- GENE M. SMITH, Ph.D., Associate in Psychology in Anaesthesiology at the Massachusetts General Hospital.
- GEORGE W. B. STARKEY, M.D., Clinical Associate in Surgery.

HERBERT S. TALBOT, M.D., Clinical Associate in Surgery.

JOHN A. WILLIAMS, M.D., Associate in Surgery at the Beth Israel Hospital.

Shinichiro Endo, M.D., Visiting Lecturer on Surgery (appointment expired August 31, 1962).

HENRY H. FAXON, M.D., Lecturer on Surgery.

EDWARD A. GAENSLER, M.D., Lecturer on Surgery.

JOHN GILLIES, M.B., CH.B., Visiting Lecturer on Anaesthesia (from October 1 through November 30, 1962).

RICHARD P. HARBORD, M.D., Visiting Lecturer on Surgery (appointment expired December 15, 1962).

JAMES E. ANLIKER, PH.D., Research Associate in Anaesthesia.

CHARLES A. APFFEL, M.D., Research Associate in Surgery.

STANLEY BULLIVANT, Ph.D., Research Associate in Surgery (from January 1, 1963).

SAUL I. COHEN, Ph.D., Research Associate in Surgery.

Julius A. Goldbarg, M.D., Research Associate in Surgery.

WEI Y. HUANG, Ph.D., Research Associate in Surgery.

RUTH B. KUNDSIN, Sc.D., Research Associate in Surgery.

PETER B. LAMBERT, M.B., CH.B., Research Associate in Surgery.

PADMAKAR P. LELE, M.D., DR.PHIL., Research Associate in Physiology in the Department of Surgery.

STEVEN LUNZER, M.D., Research Associate in Surgery.

CARLO PALMERIO, M.D., Research Associate in Surgery.

ESTEBAN P. PINEDA, M.D., Research Associate in Surgery.

Selma H. Rutenburg, M.D., Research Associate in Surgery.

Edgar E. Smith, Ph.D., Research Associate in Surgery.

ALBERT H. SOLOWAY, Ph.D., Research Associate in Surgery.

ARTHUR L. ABRAMS, M.D., Instructor in Anaesthesia.

John G. Adams, Jr., M.D., Instructor in Anaesthesia.

MILTON H. ALPER, M.D., Instructor in Anaesthesia.

Ernest M. Barsamian, M.D., Instructor in Surgery.

HARRISON BLACK, M.D., Instructor in Surgery.

HATHORN P. Brown, M.D., Instructor in Surgery.

John W. Chamberlain, M.D., Instructor in Surgery.

JOHN DAVIDSON CONSTABLE, M.D., Instructor in Surgery.

SURGERY

NATHAN P. COUCH, M.D., Instructor in Surgery.

DEAN CROCKER, M.D., Instructor in Anaesthesia.

ROBERT E. DESAUTELS, M.D., Instructor in Surgery.

GORDON A. DONALDSON, M.D., Instructor in Surgery.

WILLIAM S. EASTON, M.D., Instructor in Anaesthesia.

ALBERT J. FINCK, M.D., Instructor in Anaesthesia.

WILLIAM F. FLYNN, M.D., Instructor in Surgery.

PHILIP S. FOISIE, M.D., Instructor in Surgery.

EDWARD W. FRIEDMAN, M.D., Instructor in Surgery.

F. THOMAS GEPHART, M.D., Instructor in Surgery.

EDWARD B. GRAY, JR., M.D., Instructor in Surgery.

PAUL F. GRYSKA, M.D., Instructor in Surgery.

EUGENE A. GURALNICK, M.D., Instructor in Surgery.

WILLIAM H. HENDREN, 3RD., Instructor in Surgery.

CARL S. HOAR, JR., M.D., Instructor in Surgery.

STEPHEN J. HOYE, M.D., Instructor in Surgery.

CHARLES E. HUGGINS, M.D., Instructor in Surgery, and Tutor in Medical Science.

LEE G. KENDALL, M.D., Instructor in Surgery.

RAYMOND N. KJELLBERG, M.D., Instructor in Surgery.

BENJAMIN J. KRIPKE, M.D., Instructor in Anaesthesia.

JAMES A. KRISHER, M.D., Instructor in Anaesthesia (from September 1, 1962).

CHARLES A. LAMB, M.D., Instructor in Surgery.

GUY W. LEADBETTER, M.D., Instructor in Surgery.

Samuel Lowis, M.D., Instructor in Surgery.

THOMAS E. MACNAMARA, M.B., CH.B., Instructor in Anaesthesia.

EDWARD M. MAHONEY, D.M.D., M.D., Instructor in Surgery.

PHILLIP S. MARCUS, M.D., Instructor in Anaesthesia.

John B. McKittrick, M.D., Instructor in Surgery.

JOST J. MICHELSEN, M.D., Instructor in Surgery.

CHARLES G. MIXTER, JR., M.D., Instructor in Surgery.

Louis H. Nason, M.D., Instructor in Surgery.

ROBERT A. NEWTON, M.D., Instructor in Surgery.

EDWARD C. PARKHURST, M.D., Instructor in Surgery.

Louis N. Pernokas, M.D., Instructor in Surgery.

HENNING PONTOPPIDAN, M.D., Instructor in Anaesthesia.

WILLIAM C. QUINBY, Jr., M.D., Instructor in Surgery.

JUDSON G. RANDOLPH, M.D., Instructor in Surgery.

John L. Rowbotham, M.D., Instructor in Surgery.

Joseph F. Ruscio, M.D., Instructor in Anaesthesia.

MARIO R. SALEM, M.D., Instructor in Anaesthesia.

EDWIN W. SALZMAN, M.D., Instructor in Surgery, and Tutor in Medical Science.

SAMUEL R. SCHUSTER, M.D., Instructor in Surgery.

Bernard R. Sears, M.D., Instructor in Surgery.

ARNOLD L. SEGEL, M.D., Instructor in Surgery.

Albert M. Starr, M.D., Instructor in Surgery.

ARNOLD STARR, M.D., Instructor in Surgery.

JOHN B. STETSON, M.D., Instructor in Anaesthesia.

WARREN J. TAYLOR, M.D., Instructor in Surgery.

JESS B. WEISS, M.D., Instructor in Anaesthesia.

Kenneth J. Welch, M.D., Instructor in Surgery.

H. Brownell Wheeler, M.D., Instructor in Surgery.

Frank C. Wheelock, Jr., M.D., Instructor in Surgery.

MALVIN F. WHITE, D.M.D., M.D., Instructor in Surgery.

EARLE W. WILKINS, JR., M.D., Instructor in Surgery.

RICHARD E. WILSON, M.D., Instructor in Surgery, and Tutor in Medical Science.

HART ACHENBACH, M.D., Assistant in Surgery.

JOHN R. ALGIRD, M.D., Assistant in Anaesthesia.

EUGENE C. ALVER, M.D., Assistant in Anaesthesia (resigned July 31, 1962).

RICHARD C. AUSTIN, M.D., Assistant in Surgery.

GEORGE E. BATTIT, M.D., Assistant in Anaesthesia.

GLENN E. BEHRINGER, M.D., Assistant in Surgery.

CHARLES B. BURBANK, M.D., Assistant in Surgery.

EDWIN L. CARTER, M.D., Assistant in Surgery.

ARNOLD H. COLODNY, M.D., Assistant in Surgery.

Joseph W. Copel, M.D., Assistant in Surgery.

Julie S. Crocker, M.D., Assistant in Anaesthesia.

BRIAN C. DALTON, M.D., Assistant in Anaesthesia.

SURGERY

CHESTER J. DEXTER, M.D., Assistant in Surgery.

ROBERT F. DINE, M.D., Assistant in Surgery.

LAWRENCE D. EGBERT, M.D., Assistant in Anaesthesia.

Bruce Foster, M.B., B.S., Assistant in Anaesthesia (from November 1, 1962).

Julius E. Goldblatt, M.D., Assistant in Surgery.

STANLEY K. GORDON, M.D., Assistant in Surgery.

HAROLD L. GREENBERG, D.M.D., M.D., Assistant in Surgery.

HANNIBAL HAMLIN, M.D., Assistant in Surgery.

IRAD B. HARDY, JR., M.D., Assistant in Surgery.

JOHN M. HEAD, M.D., Assistant in Surgery.

STEPHAN E. HEDBERG, M.D., Assistant in Surgery.

JOHN HEDLEY-WHITE, M.B., CH.B., Assistant in Anaesthesia.

DOROTHY K. HEERDEGEN, M.D., Assistant in Anaesthesia.

ZOLMAN HELFAND, D.M.D., M.D., Assistant in Surgery.

HYMAN A. HERSHMAN, M.D., Assistant in Surgery.

CLEMENT A. HIEBERT, M.D., Assistant in Surgery.

DAVID C. JACKSON, M.B., B.S., Assistant in Anaesthesia.

ALFRED T. JOSEPH, D.M.D., M.D., Assistant in Surgery.

EDWARD KAPLAN, M.D., Assistant in Surgery.

Susanne J. Lamdin, M.D., Assistant in Anaesthesia.

Myron B. Laver, M.D., Assistant in Anaethesia.

FEUNG B. LEE, M.D., Assistant in Surgery.

ARMAND A. LEFEMINE, M.D., Assistant in Surgery.

HOWARD J. LEWENSTEIN, M.D., Assistant in Surgery.

JOHN B. LLOYD, M.D., Assistant in Surgery.

EDWARD Los, M.D., Assistant in Anaesthesia (resigned August 8, 1962).

RONALD A. MALT, M.D., Assistant in Surgery.

BUCKNAM MCPEEK, M.D., Assistant in Anaesthesia.

KEITH MERRILL, JR., M.D., Assistant in Surgery.

CARROLL C. MILLER, M.D., Assistant in Surgery.

ELLIOTT V. MILLER, M.D., Assistant in Anaesthesia.

John G. Morgan, M.B., Ch.B., Assistant in Anaesthesia (appointment expires April 30, 1963).

Edward T. O'Hara, M.D., Assistant in Surgery.

ROBERT G. OJEMANN, M.D., Assistant in Surgery.

ANNE W. PHILLIPS, M.D., Assistant in Surgery.

IRA S. PIDGEON, M.D., C.M., Assistant in Surgery.

WILLIAM S. RACHLIN, M.D., Assistant in Surgery.

GRANT "V" RODKEY, M.D., Assistant in Surgery.

WILLIAM P. ROGERS, Jr., M.D., Assistant in Surgery.

LEON ROSENFELD, M.D., Assistant in Surgery.

S. Peter Sarris, M.D., Assistant in Surgery.

TALBOT D. SEIGNE, M.B., CH.B., Assistant in Anaesthesia.

JACOB B. SHAMMASH, M.D., Assistant in Surgery (resigned September 30, 1962).

PAUL B. SHAPIRO, M.D., Assistant in Surgery (resigned August 31, 1962).

ROBERT SHAPIRO, M.D., Assistant in Surgery.

John Shillito, Jr., M.D., Assistant in Surgery.

ELIOT M. SLATER, M.D., Assistant in Anaesthesia.

John C. Snow, M.D., Assistant in Anaesthesia.

JUDITH A. TASSIE, B.S., Assistant in Anaesthesia.

HERMAN TURNDORF, M.D., Assistant in Anaesthesia.

PHILIP H. WALKER, M.D., Assistant in Surgery.

SARITA G. WALZER, M.D., Assistant in Anaesthesia.

CHIU-AN WANG, M.D., Assistant in Surgery (from September 1, 1962).

Morton P. Weisman, M.D., Assistant in Anaesthesia.

TERENCE P. ABBISS, Ph.D., Research Fellow in Surgery.

Modhaffer K. Al-Chokhachy, M.D., Research Fellow in Surgery (appointment expired July 31, 1962).

GUY P. J. ALEXANDRE, M.D., Research Fellow in Surgery (appointment expired December 31, 1962).

JAIME ARREGUI, M.D., Research Fellow in Surgery.

Sven-Erik Bergentz, M.D., Research Fellow in Surgery (from September 1, 1962).

RUDOLF J. BLIETZ, M.D., Research Fellow in Surgery (resigned December 31, 1962).

Louis J. Blumen, M.D., Research Fellow in Surgery.

MICHAEL P. BRADY, M.B., CH.B., Research Fellow in Surgery (September 1 through December 31, 1962).

Donald K. Brief, M.D., Research Fellow in Surgery.

JERALD S. BRODKEY, M.D., Research Fellow in Surgery (appointment expires April 30, 1963).

MAYO E. Brown, M.S., Research Fellow in Surgery.

ALBERT A. BUYTENDORP, M.D., Research Fellow in Surgery.

KHAGENDRA N. CHATTERJEE, M.D., Research Fellow in Surgery.

Bernard J. Clark, M.D., Research Fellow in Surgery.

STEWART D. CLARKE, M.B., CH.B., Research Fellow in Surgery (from September 1, 1962).

DAVID L. CROSBY, M.B., CH.B., Research Fellow in Surgery (appointment expired October 31, 1962).

OSCAR S. CUNANAN, M.D., Research Fellow in Surgery (from January 1, 1963).

FUAD J. DAGHER, M.D., Research Fellow in Surgery.

WOLFGANG K-R. ENTZIAN, M.D., Research Fellow in Surgery.

EDGAR G. EUCHBAUM, M.D., Research Fellow in Surgery.

John Fairgrieve, M.B., Ch.B., Research Fellow in Surgery (from September 1, 1962).

DIANA V. FARNSWORTH, M.D., Research Fellow in Surgery.

RICHARD V. FIDDIAN, M.B., CH.B., Milton Research Fellow in Surgery.

PAUL L. FREDERICK, M.D., Research Fellow in Surgery (from September 1, 1962).

GIANFRANCO FRITTELLI, M.D., Research Fellow in Surgery.

RICHARD B. GIBSON, M.D., Research Fellow in Surgery (from October 1, 1962).

ROLANDO GOMEZ, M.D., Research Fellow in Surgery (appointment expires March 31, 1963).

JACOBUS M. GREEP, M.D., Research Fellow in Surgery.

EDWARD J. GUINEY, M.B., CH.B., Research Fellow in Surgery (from December 1, 1962).

Yoichi Hashizume, M.D., Research Fellow in Surgery.

Kinichiro Higashi, M.D., Research Fellow in Surgery (from September 1, 1962).

Motokazu Hori, M.D., Research Fellow in Surgery (from September 1, 1962).

CHRISTOPHER J. W. HUSTON, M.B., CH.B., Research Fellow in Surgery (appointment expired September 30, 1962).

GEORGES H. JANTET, M.B., B.S., Research Fellow in Surgery (appointment expired August 31, 1962).

PETER R. KNIGHT, M.B., Ch.B., Research Fellow in Surgery (from November 1, 1962).

Bernard Langer, M.D., Research Fellow in Surgery (from January 1, 1963).

LEE V. LEAK, Ph.D., Research Fellow in Surgery (from September 1, 1962).

MARTIN C. LINDEM, JR., M.D., Research Fellow in Surgery.

Julius Lister, M.D., Research Fellow in Surgery.

JOHN H. MAHAN, M.D., Research Fellow in Surgery.

DAVID C. MARSHALL, M.D., Research Fellow in Surgery (appointment expired September 30, 1962).

VERNON C. MARSHALL, M.B., B.S., Research Fellow in Surgery (resigned July 31, 1962).

J. Adrian P. Marston, M.B., Ch.B., Research Fellow in Surgery (appointment expired October 31, 1963).

John D. McGavic, M.D., Research Fellow in Surgery.

YULI MIYAZAKI, M.D., Research Fellow in Surgery (appointment expired November 30, 1962).

ALFRED P. MORGAN, JR., M.D., Research Fellow in Surgery (from December 1, 1962).

NEJAT NARTER, M.D., Research Fellow in Surgery.

NORMAN C. NELSON, M.D., Research Fellow in Surgery.

Antero C. Neto, M.D., Research Fellow in Surgery (from September 1, 1962).

Bernard Nolan, M.B., Ch.B., Research Fellow in Surgery (appointment expired August 31, 1962).

Louis J. Opit, M.B., B.S., Research Fellow in Surgery (from September 1, 1962).

PIETRO PAOLETTI, M.D., Research Fellow in Surgery (appointment expired January 31, 1963).

JACQUES POISSON, M.D., Research Fellow in Surgery (October 16, 1962 through April 15, 1963).

Pasko Rakic, M.D., Research Fellow in Surgery (from November 1, 1962).

C. Francis Roe, M.B., Ch.B., Research Fellow in Surgery.

MICHIO SAKANOUE, M.D., Research Fellow in Surgery.

OSAMU SATO, M.D., Research Fellow in Surgery.

Justus S. Saurbrey, M.D., Research Fellow in Surgery (appointment expired September 30, 1962).

Donald D. Sheffel, M.D., Research Fellow in Surgery (appointment expired December 31, 1962).

ALAN R. SPIEVACK, M.D., Research Fellow in Surgery (appointment expires March 31, 1963).

SERGIO STIPA, M.D., Research Fellow in Surgery.

Jun Takeda, M.D., Research Fellow in Surgery (appointment expires April 30, 1963).

SPYROS K. TAMVAKOPOULOS, M.D., Research Fellow in Surgery (from August 1, 1962).

EDWARD S. TANK, M.D., Research Fellow in Surgery.

ROBERT TYM, M.B., CH.B., Research Fellow in Surgery (from September 1, 1962).

CHARLES G. WATSON, M.D., Research Fellow in Surgery.

LAWRENCE I. ZAROFF, M.D., Research Fellow in Surgery.

BENGT E. M. ZETTERSTROM, M.D., Research Fellow in Surgery.

ROBERT M. ZOLLINGER, JR., M.D., Research Fellow in Surgery.

GASPAR G. DEPARADES, Jr., M.D., Teaching Fellow in Surgery (October 1 through December 31, 1962).

MAURICE J. ELOVITZ, M.D., Teaching Fellow in Surgery (January 1 through March 31, 1963).

GARY E. GATHMAN, M.D., Teaching Fellow in Surgery.

Ernest Grable, M.D., Teaching Fellow in Surgery.

George A. Harkins, M.D., Teaching Fellow in Surgery.

Arnot von Hippel, M.D., Teaching Fellow in Surgery (appointment expired September 30, 1962).

DAVID LEE KELLY, Jr., M.D., Teaching Fellow in Surgery (from January 1, 1963).

Anthony P. Monaco, M.D., Teaching Fellow in Surgery.

CLYDE NORMAN SHEALY, M.D., Teaching Fellow in Surgery (appointment expires April 30, 1963).

NAEEMUDDIN M. SIDDIQUIE, M.D., Teaching Fellow in Surgery.

LAURENCE N. UNGER, M.D., Teaching Fellow in Surgery (appointment expired December 31, 1962).

HAROLD C. URSCHEL, JR., M.D., Teaching Fellow in Surgery (appointment expired December 31, 1962).

Frank J. Veith, M.D., Arthur Tracy Cabot Teaching Fellow in Surgery.

ERICH S. WISIOL, M.D., Teaching Fellow in Surgery (appointment expired December 31, 1962).

RALEIGH L. WRIGHT, M.D., Teaching Fellow in Surgery (from September 1, 1962).

NICHOLAS T. ZERVAS, M.D., Teaching Fellow in Surgery (appointment expired August 31, 1962).

Affiliated:

ADELBERT AMES, 3D, M.D., Research Associate in Biological Chemistry.

Asenath Petrie, Ph.D., Research Associate in Psychology in the Department of Psychiatry.

Required Courses

Instruction will be given by amphitheatre clinics, lectures, and conferences, together with section teaching in the wards and out-patient departments of the hospitals and in the surgical research laboratories.

Surgery A. Second Year. — The course is designed to correlate preclinical sciences with the basic principles underlying the surgical management of injury and disease. The Department of Surgery joins with the Department of Medicine in a series of exercises in physical diagnosis and laboratory medicine to offer unified instruction in case taking. Practical exercises are offered that introduce the student to basic surgical techniques.

Surgery B. Third Year. — The course is conducted in the outpatient departments and wards of the hospitals affiliated with the

SURGERY

School. The students are divided into three groups, each group in rotation being apportioned to one of the hospitals affiliated with the School for instruction in surgery over a sixty-four-day period. During this period they will study general surgery and urology at the hospital to which they are assigned, and will also receive instruction in gynecology at the Free Hospital for Women and the Massachusetts General Hospital and in Otolaryngology at the Massachusetts Eye and Ear Infirmary. Instruction in the surgery of children is given during the pediatric section work at The Children's Hospital Medical Center. Opportunity for experience in surgical operative techniques is offered in Voluntary Course 32 that may be taken in conjunction with section work.

SURGERY C. Fourth Year. — A series of not less than two months as clinical clerk in the surgical wards of the B.I.H., B.C.H., M.G.H. or P.B.B.H. is required of each student.

During the fourth year, students will be assigned to one of the departments of anaesthesia associated with the medical school. The time spent shall be sufficient to provide an introduction to the problems and possibilities of anaesthesia as a specialty of medicine. The student will acquire some knowledge of oxygen therapy, of pre- and post-operative anaesthetic care and will administer, under supervision, the commonly used anaesthetics to patients. Factors of importance in the support and resuscitation of unconscious persons will be emphasized. This experience is designed to lead to an understanding of problems associated with the safe management of individuals handicapped by pre-existing disease, by anaesthesia, and by surgery.

SECOND YEAR

HOURS

Lectures and demonstrations on the fundamental aspects of clinical surgery and anaesthesia. Drs. Beecher, Moore, Russell, and Associates. M.G.H. and P.B.B.H. Second half-year.

Section work, case taking, lectures and demonstrations on the physical diagnosis of surgical disease in conjunction with the Department of Medicine. B.I.H., B.C.H., M.G.H., and P.B.B.H. Each student has twenty-four exercises.

84

THIRD YEAR

Amphitheatre lectures. Drs. Moore, Russell, and Associates.
Once a week throughout the year.

34

HOURS

27

27

288

Exercises in sections in the wards and out-patient departments at the B.I.H., M.G.H., and P.B.B.H.

Genito-Urinary Surgery. Section work. B.I.H., M.G.H., and

Genito-Urinary Surgery. Section work. B.I.H., M.G.H., and P.B.B.H. Each student has ten or eleven two-and-a-half hour exercises.

Children's Surgery. Section work. C.H.M.C. Each student has four one-and-a-half hour exercises, eleven one-hour exercises, and five two-hour exercises.

Orthopedic Surgery. Section work. See Department of Orthopedic Surgery (page 181).

FOURTH YEAR

Clinical Clerkship: M.G.H. (Surgery C1, Dr. Russell and Associates); B.C.H. (Surgery C2, Dr. Osborne and Associates); P.B.B.H. (Surgery C3, Dr. Moore and Associates); B.I.H. (Surgery C4, Dr. Fine and Associates).

Fourth Year Elective Courses

5. Children's Surgery. Dr. Gross and Associates. C.H.M.C. Whole course, all day. Limited to two students each month.

6. Vascular and Gastrointestinal Surgery. Dr. Warren and Associates W.R.V.A.H. Whole course, all day. Limited to two students each month.

8. Genito-Urinary Surgery. Dr. Harrison. P.B.B.H. Whole course, all day. Limited to two students each month.

9. Anaesthesia. Dr. Beecher. M.G.H. or Dr. Vandam. P.B.B.H. Whole course, all day. Attendance limited. Application to be made in person.

10. Neurosurgery. Dr. W. H. Sweet and Associates. M.G.H. or Drs. Ingraham and Matson, C.M.C. and P.B.B.H. Whole course, all day, limited to two students each month. Clinical clerkship on the neurosurgical wards.

11. General Surgery. Dr. Osborne and Associates. Boston City Hospital. Whole course, all day for one or two months.

20. Surgical Investigation. Dr. Moore and Associates. P.B.B.H. and H.M.S. Whole course, all day. Limited to two students each month. Extensive investigative opportunity is offered, particu-

SURGERY

larly in the fields of metabolism (Dr. Moore), energy exchange (Dr. Kinney), tissue transplantation (Drs. Murray, Sturgis, Wilson, Brooks), and cardiac surgery (Dr. Harken).

21. Surgical Investigation. Dr. Russell and Associates. Intensive individual investigative experience offered in fields of cardio-vascular physiology (Drs. Scannell and Shaw), hepatic metabolism (Dr. McDermott), tissue immunology (Dr. Russell), repair and inflammation (Drs. Grillo and Burke). M.G.H. Whole course, all day.

23. Surgical Investigation. Dr. Fine and Associates, B.I.H. Whole

course, all day.

Voluntary Courses

32. Surgical Technique. Members of the third year class may register for the following courses in surgical technique at the hospital to which they have been assigned for their section work.

1. Operative Technique. M.G.H. Dr. C. MIXTER, JR., and Associates. Thursday afternoons throughout the year. Surgical Laboratories. May only be taken coincidentally with section

work.

2. Operative Technique. P.B.B.H. Dr. Murray and Associates. Thursday afternoons, October through January. Laboratory for Surgical Research, H.M.S. Students not assigned to the P.B.B.H. may take the course if vacancies occur.

3. Operative Technique. B.I.H. Dr. FINE and Associates. Thursday afternoons, October through November. Surgical Re-

search Laboratory.

34. Athletic Injuries, Diagnosis and Management. Drs. Thorndike, Quigley and Associates. Dillon Field House. Tuesday and Thursday afternoons, October 10 through November 22. Open to third year students. Limited to a total of eight students.

TROPICAL PUBLIC HEALTH

This course is given by the following members of the Faculty of the Harvard School of Public Health.

- THOMAS H. WELLER, M.D., LL.D., Richard Pearson Strong Professor of Tropical Public Health, and Head of the Department.
- Franklin A. Neva, M.D., Associate Professor of Tropical Public Health.
- ELI CHERNIN, S.D., Associate Professor of Tropical Public Health. Thomas E. Frothingham, M.D., Assistant Professor of Tropical Health.
- EDWARD H. MICHELSON, Ph.D., Associate in Tropical Public Health.
- CHIA-TUNG PAN, M.D., M.P.H., Associate in Tropical Public Health.
- Andrew Spielman, Ph.D., Instructor in Tropical Public Health.

Required Course

Parasitology A. Second Year. — The important helminth and protozoan parasites of man are considered with reference to their geographic distribution, identification, mode of transmission, pathogenesis, immune reactions and methods for prevention and control. Clinical aspects and chemotherapy of parasitic diseases are discussed. Emphasis is given to methods of laboratory diagnosis.

SECOND YEAR

HOURS

4 I

Lectures, demonstrations, and laboratory work. Dr. Weller and Staff. Monday and Friday afternoons, January and February

Elective and Voluntary Courses

Courses offered by the Department of Tropical Public Health in the School of Public Health are open, as electives, to third and fourth year students. The research facilities of the Department are available for elective work by qualified students, and opportunities for experience in tropical areas may be arranged.

DEGREES CONFERRED

On June 14, 1962, One Hundred and Sixteen Degrees were

Conferred as Follows:

M.D.

CHARLES SAUL AUGUST, A.B. 1958.

SHELDON STUART BADDOCK, A.B. (Amherst Coll.) 1958.

CYNTHIA TOWNSEND BARRETT, A.B. (Vassar Coll.) 1958.

ROBERT PALMER BEASLEY, A.B. (Dartmouth Coll.) 1958.

MICHAEL JAY BENNETT, A.B. (Princeton Univ.) 1958.

ELIOT LAWRENCE BERSON, S.B. (Yale Univ.) 1958.

STEPHEN IAN BULOVA, A.B. (Yale Univ.) 1958.

RICHARD IRVING BURTON, A.B. (Amherst Coll.) 1958.

VERNE STRUDWICK CAVINESS, JR., A.B. (Duke Univ.) 1956, DR. PHIL. (Univ. of Oxford) 1960.

WILLIAM MICHAEL COLAIACE, A.B. (Dartmouth Coll.) 1959.

ARTHUR DAVID COLMAN, A.B. 1958.

RICHARD LEE CONN, A.B. (Thiel Coll.) 1958.

JACK CALVIN COOKSEY, A.B. 1958.

ROBERT CSERR, A.B. 1958.

DAVID WILSON DAIN, A.B. (Hiram Coll.) 1958.

ROBERT ALMY DANIELSON, A.B. (Dartmouth Coll.) 1959.

Frederick Robinson McReynolds Deane, a.B. (Amherst Coll.) 1958.

Guy Bryan Dewees, 3D, A.B. (Univ. of Mississippi) 1958.

Eugene DiCero, a.B. (Johns Hopkins Univ.) 1957, A.M. (ibid.) 1957.

ROBERT MICHAEL DI MAURO, A.B. (Dartmouth Coll.) 1959.

JOHN PAUL DIXON, A.B. (Yale Univ.) 1952.

ROBERT GEORGE DLUHY, A.B. (Princeton Univ.) 1958.

RICHARD BEIN DOBROW, A.B. 1958.

PETER EDMUND DOBROWOLSKI, A.B. (Dartmouth Coll.) 1959.

WILLIAM CANNON DONAHUE, S.B. (Coll. of the Holy Cross) 1958.

CHARLES STITT DRUMMOND, JR., S.B. (Davidson Coll.) 1958.

ROBERT BOLLING EGGLESTON, A.B. (Univ. of Virginia) 1957.

PETER ALAN EVANS, A.B. 1958.

Arnold Feldman, A.B. (Columbia Univ.) 1958.

RICHARD MEZER FINKEL, A.B. 1958.

ERNEST WASHINGTON FRANKLIN, 3D, A.B. (Princeton Univ.) 1958.

Duane Theodore Freier, a.b. (Yankton Coll.) 1958, s.b. in Med. (State Univ. of South Dakota) 1960.

DONALD JOSEPH GILL, S.B. (Boston Coll.) 1958.

CECIL LEE GILLIATT, JR., A.B. (Dartmouth Coll.) 1959.

WINSLOW WARREN CHILTON GREEN, A.B. 1958.

JACK BRYSSON GREENWELL, JR., A.B. (Yale Univ.) 1958.

PETER MASON GUNDERSEN, A.B. 1955.

GRAEME HANSON, A.B. (Yale Univ.) 1958.

JOHN WILLIAM HARTZ, A.B. (Albion Coll.) 1958.

HOPE HENNEKE, A.B. (Vassar Coll.) 1957.

ROBERT WILLIAM HERB, A.B. 1959.

JOSEPH WILLARD INSELBURG, S.B. (Univ. of Miami) 1958.

STEVEN JONAS, A.B. (Columbia Univ.) 1958.

SAMUEL HOMER KIM, A.B. 1958.

THOMAS GEORGE LAWRENCE, JR., S.B. (Union Coll.) 1958.

RALPH ARNOLD WALTER LEHMAN, A.B. 1958.

JOEL DONALD MACK, A.B. 1958.

PETER McPHEDRAN, A.B. 1958.

GEORGE ARTHUR MAY, JR., A.B. (Yale Univ.) 1958.

ROGER EMIL MEYER, A.B. (Hobart Coll.) 1958.

ESTEBAN MEZEY, A.B. (Yale Univ.) 1958.

Hubert Sheldon Mickel, s.B. (Eastern Nazarene Coll.) 1958.

Donald Stuart Miller, A.B. (Dartmouth Coll.) 1959.

Douglas Allen Miller, A.B. (Univ. of North Dakota) 1958, s.m. (ibid.) 1959, s.B. IN MED. (ibid.) 1960.

GEORGE MILLER, A.B. 1958.

HOWARD GEORGE MUNRO, A.B. (Dartmouth Coll.) 1959.

Francis Albert Neelon, s.B. (Boston Coll.) 1958.

GARY ROLLIN NOBLE, A.B. (Albion Coll.) 1957, B.A. (Univ. of Oxford) 1961.

EILEEN MARIE OUELLETTE, A.B. (Smith Coll.) 1958.

ANITA PAINE, A.B. (Smith Coll.) 1958.

RICHARD MALCOLM PARKER, A.B. (Cornell Univ.) 1958.

Steven Maurice Podos, a.B. (Princeton Univ.) 1958.

MICHAEL ELIOT POLLATSEK, A.B. 1958.

KENNETH ALBERT PRUETT, A.B. 1958.

ROBERT LINDSAY PYLES, A.B. (Univ. of Virginia) 1958.

DAVID LAWRENCE RAVELLA, JR., S.B. (Univ. of Pittsburgh) 1958.

DEGREES CONFERRED

JAMES HENRY REISS, A.B. 1958.

SAUL HASKELL ROSENTHAL, A.B. 1958.

EDWARD BERNARD SILBERSTEIN, S.B. (Yale Univ.) 1958.

DAVID FREDERICK SILBERT, A.B. 1958.

Frederick Holden Sillman, A.B. (Princeton Univ.) 1958.

ELIZABETH BERNHARD SILVERMAN, S.B. (Tufts Univ.) 1958.

CHARLES BRYAN SMITH, A.B. (Amberst Coll.) 1958.

ELEANOR ANN ATTIANESE SORRENTINO, A.B. (Bryn Mawr Coll.) 1958.

GEORGE ELWOOD STROBEL, JR., A.B. 1958.

David Bearce Swift, s.B. (Norwich Univ.) 1958.

RICHARD ALLAN PORTER THOFT, s.B. (Massachusetts Inst. of Technology) 1958.

ROBERT LEROY WALDRON, 2D, A.B. (Princeton Univ.) 1958.

MICHAEL JOHNSON WALKER, S.B. IN B.A. (Boston Univ.) 1952, A.B. (New York Univ.) 1958.

LE ROY SAMUEL WIRTHLIN, S.B. (Univ. of Utah) 1955.

RICHARD PHILIP ZIMON, A.B. 1958.

Lawrence Sheldon Zivin, a.B. 1956, a.m. 1958.

M.D. cum laude for Thesis in a Special Field

CHARLES WILLIAM LEES, A.B. (Amberst Coll.) 1958.

PETER BICKNELL MANSFIELD, A.B. (Stanford Univ.) 1958.

M.D. cum laude

Howard Richard Abel, A.B. (Cornell Univ.) 1958.

CHESTON MILTON BERLIN, JR., A.B. (Haverford Coll.) 1958.

JOHN MICHAEL BISHOP, A.B. (Gettysburg Coll.) 1957.

MARTHA SYLVIA BRIDGE, A.B. (Bryn Mawr Coll.) 1958.

ROBERT A DE LEMOS, A.B. (Amberst Coll.) 1958.

David Zachary Friedberg, a.B. (Williams Coll.) 1958.

Ronald Gold, A.B. 1957.

MORTON FALK GOLDBERG, A.B. 1958.

Arnold Martin Goodsitt, A.B. (Yale Univ.) 1958.

EDWARD DAY HARRIS, JR., A.B. (Dartmouth Coll.) 1958.

ROBERT BRUCE HOWE, S.B. (Union Coll.) 1958.

ROBERT WILLIAM HUSSEY, S.B. (Albright Coll.) 1958.

Stephen Feuer Konigsberg, A.B. (Columbia Univ.) 1958.

Bernard David Kosowsky, A.B. (Columbia Univ.) 1958.

DEXTER WAYNE LAWSON, A.B. 1958.

James Richard Lehrich, a.b. 1958.

KENNETH McIntosh, A.B. 1958.

THOMAS GEORGE MAGILL, A.B. (Dartmouth Coll.) 1959.

MATTHEW MENKEN, A.B. (Univ. of Pennsylvania) 1958.

CATHERINE MONNIER MINOCK, A.B. (Stanford Univ.) 1958.

ROBERT CHARLES MOELLERING, JR., A.B. (Valparaiso Univ.) 1958.

WILLIAM ROLAND MOORE, S.B. (Univ. of California at Los Angeles) 1958.

PHILIP FREDERICK SPARLING, A.B. (Princeton Univ.) 1958.

HENRY WINCHESTER VAILLANT, A.B. 1958.

M.D. magna cum laude for Thesis in a Special Field

CHARLES RICHARD JORGENSEN, S.B. (lowa State Coll.) 1958.

RICHARD LEWIS VEECH, A.B. 1957.

CHARLES DILLON WOODY, A.B. (Princeton Univ.) 1957.

M.D. magna cum laude

JAMES MALCOLM HARTSUCK, S.B. (Univ. of Oklahoma) 1958.

Andrew Ho Kang, s.B. (Wofford Coll.) 1957.

BURTON ELIAS SOBEL, A.B. (Cornell Univ.) 1958.

HERBERT SUMNER WAXMAN, S.B. (Massachusetts Inst. of Technology) 1958.

M.D. summa cum laude for Thesis in a Special Field David Reiss, A.B. 1958.

INTERNSHIPS

CLASS OF JUNE 1962

Unless otherwise noted all internships start July 1, 1962, for one year.

Name	Hospital (and location)	Service
Abel, Howard R.	University Hospitals, Cleveland, Ohio	Medicine
August, Charles S.	Univ. of Pennsylvania, Philadelphia, Pa.	Rotating
Baddock, Sheldon S.	Massachusetts General, Boston	Pathology
Barrett, Cynthia T.	Univ. of Washington, Seattle,	
•	Wash.	Pediatrics
Beasley, Robert P.	King County, Seattle, Wash.	Rotating
Bennett, Michael J.	King County, Seattle, Wash.	Rotating
Berlin, Cheston M.,		e
Jr.	Children's Hospital Medical Cen-	
	ter, Boston	Pediatrics
Berson, Eliot L.	Univ. of California, San Francisco,	
	Calif.	Medicine
Bishop, J. Michael	Massachusetts General, Boston	Medicine
Bridge, Martha S.	Beth Israel, Boston	Medicine
Bulova, Stephen I.	Beth Israel, Boston	Medicine
Burton, Richard I.	Strong Memorial, Rochester, N.Y.	Surgery
Caviness, Verne S.	Massachusetts General, Boston	Medicine
Colaiace, William M.	Roosevelt Hosp., New York, N.Y.	Mixed
Colman, Arthur D.	Beth Israel, Boston	Medicine
Conn, Richard L.	University Hospital, Ann Arbor,	
	Mich.	Surgery
Cooksey, Jack C.	Univ. of Illinois Research & Educa-	
	tional, Chicago, Ill.	Rotating
Cserr, Robert	Univ. of Virginia, Charlottesville,	
	Va.	Medicine
Dain, David W.	Univ. of Utah, Salt Lake City,	_
D 11 D1	Utah	Rotating
Danielson, Robert A.	• • • • • • • • • • • • • • • • • • •	
	Ohio	Surgery

Name	Hospital (and location)	Service
de Lemos, Robert A	Children's Hospital Medical Center, Boston	Pediatrics
Deane, Frederick R.	University Hospital, Ann Arbor, Mich.	Surgery
Dewees, Guy B., 3d	Med. College of Virginia, Richmond, Va.	Surgery
DiCero, Eugene	Grace-New Haven Community, New Haven, Conn.	Pediatrics
Di Mauro, Robert M.	Roosevelt Hosp., New York, N.Y.	Mixed
Dixon, John P.	Peter Bent Brigham, Boston	Surgery
Dluhy, Robert G.	Peter Bent Brigham, Boston	Medicine
Dobrow, Richard B.	Cleveland Metropolitan General, Cleveland, Ohio	Medicine
Dobrowolski, Peter E.	St. Luke's, New York, N.Y.	Mixed
Donahue, William	, , , , , , , , , , , , , , , , , , , ,	
C.	University Hospital, Ann Arbor, Mich.	Rotating
Drummond, Charles		
S.	Med. College of Virginia, Richmond, Va.	Surgery
Eggleston, Robert		
В.	Univ. of Chicago Clinics, Chicago, Ill.	Medicine
Evans, Peter A.	Mary Hitchcock Memorial, Han- over, N.H.	Rotating
Feldman, Arnold	Lenox Hill, New York, N.Y.	Rotating
Finkel, Richard M.	Univ. of Minnesota, Minneapolis, Minn.	Medicine
Franklin, Ernest W.	Barnes, St. Louis, Mo.	Surgery
Freier, Duane T.	University Hospital, Ann Arbor, Mich.	Surgery
Friedberg, David Z.		Surgery Pediatrics
Gill, Donald J.	Presbyterian, Philadelphia, Pa.	Rotating
Gilliatt, Cecil L., Jr.	Duke Hospital, Durham, N.C.	Pediatrics
Gold, Ronald	Boston City (Harvard Service), Boston	Medicine

INTERNSHIPS

Name	Hospital (and location)	Service
Goldberg, Morton F.	Peter Bent Brigham, Boston Boston City (Harvard Service),	Medicine
	Boston City (Harvard Service),	Medicine
Green, Winslow W. C.	Boston City (Harvard Service),	
	Boston	Surgery
Greenwell, Jack B., Jr.	Peter Bent Brigham, Boston	Surgery
Gundersen, Peter M.	Cleveland Metropolitan General, Cleveland, Ohio	Surgery
Hanson, Graeme	Lenox Hill, New York, N.Y.	Rotating
Harris, Edward D., Jr.	Massachusetts General, Boston	Medicine
Hartsuck, James M. Hartz, John W.	Peter Bent Brigham, Boston Univ. of Chicago Clinics, Chicago,	Surgery
, •	Ill.	Medicine
Henneke, Hope Herb, Robert W.	Internship Postponed Baltimore City, Baltimore, Md.	Medicine
Howe, Robert B.	Univ. of Minnesota, Minneapolis, Minn.	Medicine
Hussey, Robert W.	Peter Bent Brigham, Boston	Surgery
Inselburg, Joseph W.	Bellevue (3d & 4th N.Y.U.), New	
Jonas, Steven	York, N.Y. Lenox Hill, New York, N.Y.	Medicine Rotating
Jorgensen, Charles		210100000
R.	Univ. of Minnesota, Minneapolis, Minn.	Medicine
Kang, Andrew H.	Peter Bent Brigham, Boston	Medicine
Kim, Samuel H.	Boston City (Harvard Service), Boston	Surgery
Konigsberg, Stephen F.	Cross Novy Haven Community	
r.	Grace-New Haven Community, New Haven, Conn.	Surgery
Kosowsky, Bernard D.	Beth Israel, Boston	Medicine

Name	Hospital (and location)	Service
Lawrence, Thomas		
G., Jr.	Univ. of Minnesota, Minneapolis,	
	Minn.	Medicine
Lawson, Dexter W.	Massachusetts General, Boston	Surgery
Lees, Charles W.	Colorado General, Denver, Colo.	Medicine
Lehman, Ralph A.	M 1 C 1 D	C
W.	Massachusetts General, Boston	Surgery
Lehrich, James R.	Massachusetts General, Boston	Medicine Medicine
McIntosh, Kenneth Mack, Joel D.	Peter Bent Brigham, Boston Univ. of Minnesota, Minneapolis,	Medicine
Wack, Joel D.	Minn.	Surgery
McPhedran, Peter	Pennsylvania Hosp., Philadelphia,	burgery
Wier neuran, 1 etc.	Pa.	Rotating
Magill, Thomas G.	Presbyterian, New York, N.Y.	Surgery
Mansfield, Peter B.	Massachusetts General, Boston	Surgery
May, George A., Jr.	Massachusetts General, Boston	Surgery
Menken, Matthew	Peter Bent Brigham, Boston	Medicine
Meyer, Roger E.	King County, Seattle, Wash.	Medicine
Mezey, Esteban	Pennsylvania Hosp., Philadelphia,	
	Pa.	Rotating
Mickel, Hubert S.	Mary Fletcher, Burlington, Vt.	Rotating
Miller, Donald S.	Duke Hospital, Durham, N.C.	Medicine
Miller, Douglas A.	Colorado General, Denver, Colo.	Medicine
Miller, George	University Hospitals, Cleveland, Ohio	Medicine
Minock, Catherine	Onio	Medicine
M.	Boston City (Harvard Service),	
141.	Boston	Medicine
Moellering, Robert	Booton	
С.	Massachusetts General, Boston	Medicine
Moore, William R.	Massachusetts General, Boston	Surgery
Munro, Howard G.	Roosevelt Hosp., New York, N.Y.	Mixed
Neelon, Francis A.	Duke Hospital, Durham, N.C.	Medicine
Noble, Gary R.	North Carolina Memorial, Chapel	
	Hill, N.C.	Medicine
Ouellette, Eileen M.	Massachusetts General, Boston	Pediatrics
Paine, Anita	Mary Imogene Bassett, Coopers-	3.6 1
	town, N.Y.	Medicine

INTERNSHIPS

Name	Hospital (and location)	Service
Parker, Richard M. Podos, Steven M.	King County, Seattle, Wash. Univ. of Utah, Salt Lake City,	Surgery
Pollatsek, Michael	Utah	Medicine
E.	Children's Hosp., San Francisco, Calif.	Rotating
Pruett, Kenneth A.	Med. College of Virginia, Rich-	Cummanu
Pyles, Robert L.	mond, Va. Mary Imogene Bassett, Cooperstown, N.Y.	Surgery Rotating
Ravella, David L.	Health Center Hosps. of the Univ.	Rotating
Reiss, David	of Pittsburgh, Pittsburgh, Pa. Buffalo General, Buffalo, N.Y.	Mixed Medicine
Reiss, James H.	Boston City (Harvard Service), Boston	Surgery
Rosenthal, Saul H.	Boston City (Harvard Service), Boston	Medicine
Silberstein, Edward	Cincinnati Consul Cincinnati	
В.	Cincinnati General, Cincinnati, Ohio	Rotating
Silbert, David F. Sillman, Frederick	Barnes, St. Louis, Mo.	Medicine
H.	Grace-New Haven Community, New Haven, Conn.	Surgery
Silverman, Elizabeth		
B. Smith, Charles B.	Grady Memorial, Atlanta, Ga. Boston City (Harvard Service),	Medicine
	Boston	Medicine
Sobel, Burton E. Sorrentino, Eleanor	Peter Bent Brigham, Boston	Medicine
A.	Georgetown Univ., Washington, D.C.	Mixed
Sparling, Philip F. Strobel, George E.,	Massachusetts General, Boston	Medicine
Jr.	Univ. of Illinois Research & Educational, Chicago, Ill.	Rotating
Swift, David B.	Univ. of Virginia, Charlottesville, Va.	Rotating

Name	Hospital (and location)	Service
Thoft, Richard A.		
Р.	Univ. of Washington, Seattle, Wash.	Rotating
Vaillant, Henry W.	Boston City (Harvard Service),	M - 1: -:
Veech, Richard L.	Boston New York Hosp., New York, N.Y.	Medicine Medicine
Waldron, Robert L.,	new fork flosp., new fork, iv.1.	Medicine
2d	Massachusetts General, Boston	Surgery
Walker, Michael J.	Letterman General, San Francisco,	<i>b y</i>
	Calif.	Rotating
Waxman, Herbert		
S.	Massachusetts General, Boston	Medicine
Wirthlin, Le Roy S.	Massachusetts General, Boston	Surgery
Woody, Charles D.	Strong Memorial, Rochester, N.Y.	Medicine
Zimon, Richard P.	Beth Israel, Boston	Medicine
Zivin, Lawrence S.	King County, Seattle, Wash.	Rotating

MEDICAL SCHOOL STUDENTS

FOURTH YEAR CLASS (1963)

- *Adrian, Erle Keys, Jr., A.B. (Rice Univ.) 1958, A.M. (Univ. of Texas) 1961. [Univ. of Texas Medical Branch]. Temple, Texas
- *Aldredge, Carolyn Kay Francis, s.B. (East Texas State Teachers Coll.)
 1958. [Baylor Univ. College of Medicine]. Galena Park, Texas
- Anderson, William French, A.B. 1958, B.A. (Univ. of Cambridge)
 1960. [Univ. of Cambridge].

 Tulsa, Okla.
- Asher, David Michael, A.B. 1959. Chicago, Ill.
- Babineau, George Raymond, A.B. (Bowdoin Coll.) 1959.
 - Hempstead, N.Y.
- Baker, Faith Ainsworth, A.B. (Smith Coll.) 1957. Brookline
 *Bart, Jerome Barry, A.B. (Dartmouth Coll.) 1960. [Dartmouth Medical School].

 Trumbull, Conn.
- Beck, James Ciora, A.B. 1956, S.M. (Yale Univ.) 1957, PH.D. (ibid.) 1960. Chicago, Ill.
- Behrendt, Douglas Mather, A.B. (Amherst Coll.) 1959. Howard, R. I.
- Berman, Lawrence Joseph, A.B. (Princeton Univ.) 1959.
 - Paterson, N. J.
- Bickel, Rudolf Gustav, s.B. (Univ. of Michigan) 1959.
- Detroit, Mich.
- Brubaker, Richard Fretwell, s.B. (Davidson Coll.) 1959. Macon, Ga. Buccino, Robert Anthony, A.B. (Yale Univ.) 1959. Easton, Conn. Casarella, William Joseph, A.B. (Yale Univ.) 1959. Trenton, N. J. Cassady, James Robert, A.B. (Univ. of Southern California) 1959.
 - Los Angeles, Calif.
- Clark, Peter Fred, A.B. (Stanford Univ.) 1959. Riverside, Calif. *Cobbs, Charles Glenn, A.B. (Princeton Univ.) 1955. [Medical Coll. of Alabama]. Birmingham, Ala.
- Coran, Arnold Gerald, A.B. 1959. Mattapan
- Cowan, Dale Harvey, A.B. 1959. University Heights, Ohio
- Crews, Richard Lawrence, A.B. (Williams Coll.) 1959. Scarsdale, N. Y.
 - ‡ Admitted on basis of three years' college work.
 - Transferred to the second year class.Transferred to the third year class.
 - N.B. In those cases where the college name is omitted, the college is Harvard; where the state is omitted, the state is Massachusetts.

Davis, Paul Joseph, A.B. (Westminster Coll.) 1959. Park Ridge, Ill. Duffy, Frank Hopkins, s.B. IN ENGIN. (Univ. of Michigan) 1958. Birmingham, Mich. DuPont, Robert Louis, Jr., A.B. (Emory Univ.) 1958. Decatur, Ga. Dvorak, Harold Fisher, A.B. (Princeton Univ.) 1958. Milwaukee, Wis. Ehrenfeld, David William, A.B. 1959. Passaic, N. J. Ellis, George John, 3d, A.B. (Centre College of Kentucky) 1959. Glasgow, Ky. Epstein, Ralph Alan, A.B. (Columbia Univ.) 1959. Yonkers, N.Y. Evans, Francis Cornelius, Jr., A.B. (Princeton Univ.) 1959. Staten Island, N.Y. ‡Finstein, Irene Fox (Boston Univ.) Winthrop Foker, John Edward, A.B. 1959. Minneapolis, Minn. Foster, Robert Russell, A.B. 1959. Princeton, N. J. Franck, Peter Tompson, A.B. 1958. Woodside, Calif. Gelehrter, Thomas David, A.B. (Oberlin Coll.) 1957, B.A. (Univ. of Oxford) 1959. Shaker Heights, Ohio Griffin, John Michael, A.B. (Hamilton Coll.) 1959. Clinton, N.Y. Gritzka, Thomas Lehman, A.B. 1959. Portland, Ore. Winnetka, Ill. Gudeman, Jon Edward, A.B. 1958. Gutierrez, Jaime Ramon, A.B. 1958. San Jose, C.R. Halpin, Thomas Francis, Jr., s.B. (Boston Coll.) 1959. Reading Haynes, Harley Anderson, A.B. (Princeton Univ.) 1959. Akron, Obio Henderson, Ralph Hale, A.B. 1959. Pleasantville, N. Y. *Hicks, Richard Eldon, s.B. (Univ. of North Dakota) 1959. [Univ. of North Dakota School of Medicine]. Grand Forks, N. Dak. *Hill, Curtis Lyle, A.B. (Univ. of North Dakota) 1960. [Univ. of North Dakota School of Medicine]. Fargo, N. Dak. Howard, Stephen Donald, A.B. 1959. Minneapolis, Minn. Kates, William Wolfe, A.B. 1959. * Amherst Keating, James Peter, A.B. 1959. Pittsburgh, Pa. *Keller, Reed Theodore, A.B. (Univ. of North Dakota) 1960. [Univ. of North Dakota School of Medicine]. Rugby, N. Dak. Keusch, Gerald Tilden, A.B. (Columbia Univ.) 1958. New York, N. Y. Keutmann, Henry Todd, A.B. (Amherst Coll.) 1959. Rochester, N. Y. Klein, Donald Edward, A.B. (Princeton Univ.) 1959. Cranford, N. J. Klein, Harvey, s.B. (Univ. of Chicago) 1959. New York, N. Y. Lebowitz, Paul, A.B. (Cornell Univ.) 1959. Newark, N. J.

Lerner, Stephen Alexander, A.B. 1959. Chicago, Ill. Lewit, Robert Todd, A.B. 1959. South Orange, N. J. Lindgren, Keith Merritt, A.B. 1958. Barrington, Ill. Lingley, James Flaglor, A.B. (Yale Univ.) 1959. Framingham Lockshin, Michael Dan, A.B. 1959. Northampton McBride, Kenneth Bernard, s.B. (St. Peter's College) 1959. Jersey City, N. J. *McDowell, James Warner, A.B. (Dartmouth Coll.) 1957. [Dartmouth Providence, R. I. Medical School]. Macon, William Linus, 4th, A.B. (Princeton Univ.) 1959. St. Louis, Mo. Martin, Albert Rene, s.B. (Stanford Univ.) 1959. San Francisco, Calif. Matthews, Larry Stanford, A.B. 1959. Boonville, Ind. *Mattson, William John, Jr., A.B. (Dartmouth Coll.) 1960. [Dartmouth Medical School?. Elmwood Park, Ill. Cincinnati, Ohio Mendelsohn, John, A.B. 1958. °Molliver, Mark Edward, A.B. 1958. [Yale Univ. School of Medicine]. Chelsea Monson, Richard Redding, s.B. (North Dakota Agricultural Coll.) Moorhead, Minn. 1958. Moolton, Frederick London, A.B. 1953. Highland Park, N. J. Moore, Gordon Tavss, A.B. 1959. Pittsburgh, Pa. Moore, Robert Booth, A.B. (Vanderbilt Univ.) 1958, A.M. (ibid.) 1959. North Little Rock, Ark. Mushinski, Joseph Frederic, A.B. (Yale Univ.) 1959. Bethesda, Md. Nash, Andrea Herzberg, A.B. (Stanford Univ.) 1959. Woodland Hills, Calif. Nash, Gerald, A.B. (Princeton Univ.) 1959. Cleveland Heights, Ohio Nies, Alan Sheffer, s.B. (Stanford Univ.) 1959. Orange, Calif. Novy, Miles Joseph, A.B. (Yale Univ.) 1959. Falls Village, Conn. Ogilvie, James Thomas, A.B. (Univ. of Colorado) 1959. Denver, Colo. *Okimoto, Joseph Tsutomu, A.B. (Dartmouth Coll.) 1960. [Dartmouth Medical School. Pasadena, Calif. Olson, William Henry, Jr., A.B. (Wesleyan Univ.) 1958. Colorado Springs, Colo. Oxman, Michael Neil, A.B. 1958.

Parker, Bruce Robert, A.B. 1959.	Detroit, Mich.
*Penza, James Francis, A.B. (Dartmouth Coll	l.) 1959. [Dartmouth Medi-
cal School].	Marblehead
Peterson, Wesley Peter, s.B. (Allegheny Co	llege) 1959.
	Jamestown, N. Y.
Philippart, Arvin Ignatius, 3d, A.B. (Univ.	
	West Bridgewater
Philipson, Joseph Bion, Jr., A.B. 1959.	Idaho Falls, Idaho
Plotz, Paul Hunter, A.B. 1958.	Brooklyn, N. Y.
Preven, David W, A.B. 1959.	Scranton, Pa.
Prien, Edwin Louis, Jr., A.B. 1959.	Waban
*Rawitscher, Robert Edward, s.B. (Univ. o	of Wisconsin) 1959. [Univ.
of North Dakota School of Medicine]	
Rayel, Peter Axelrod, A.B. 1959.	Los Angeles, Calif.
*Reiss, Luce Lauer, A.B. (Radcliffe Coll.)	,
College of Medicine].	New York, N. Y.
*Remmers, John Edward, A.B. (Dartmout)	
Medical School].	Anchorage, Ky.
Richardson, John Robert, Jr., A.B. 1959.	Wellesley Hills
Riordan, Charles Edward, A.B. (Coll. of th	•
, , ,	New York, N. Y.
Roberts, Donald Bruce, s.B. (California Ins	·
	Yakima, Wash.
*Robertson, Kenneth Blake, A.B. (Dartmout	th Coll.) 1959. [Dartmouth
Medical School].	Keene, N. H.
*Rockenmacher, Sol, A.B. (Dartmouth Coll	
cal School].	Redondo Beach, Calif.
Rosen, David Lee, A.B. 1959.	University Heights, Ohio
Rozett, Ronald Tilden, A.B. (New York U	
	Brooklyn, N. Y.
Rutman, Joel, A.B. (Brandeis Univ.) 1959.	Beechwood Village, Ohio
Sachar, David Bernard, A.B. 1959.	Newtonville
Sampson, Richard Joseph, A.B. (Univ. of	77 · 70 · · · \
	Notre Dame) 1050.
	, , , , ,
	Los Angeles, Calif.
Sanders, Jay Henry, A.B. (Colgate Univ.)	Los Angeles, Calif. 1959. Elmont, N. Y.
Sanders, Jay Henry, A.B. (Colgate Univ.) *Saphir, James Robin, A.B. (Dartmouth Coll	Los Angeles, Calif. 1959. Elmont, N. Y. 1.) 1957. [Dartmouth Medi-
Sanders, Jay Henry, A.B. (Colgate Univ.)	Los Angeles, Calif. 1959. Elmont, N. Y.

Simpson, Robert Todd, A.B. (Swarthmore Coll.) 1959. Pleasant Ridge, Mich. Sisson, Warden Barr, A.B. (Pomona Coll.) 1959. Los Angeles, Calif. Smith, Stephen Ross, A.B. (Princeton Univ.) 1959. Rosemont, Pa. Galveston, Tex. Snodgrass, Samuel Robert, Jr., A.B. 1959. Speidel, John Joseph, A.B. 1959. Minneapolis, Minn. *Stagg, Arthur Ritchey, A.B. (Dartmouth Coll.) 1960. [Dartmouth Medical School]. Medfield Steele, Robert Edwin, Jr., A.B. (Univ. of Missouri) 1959. Nevada, Mo. Stocker, William Althen, A.B. (Carleton Coll.) 1958. Springfield, Ill. *Swenson, David Dean, A.A. (Bismark Jr. Coll.) 1955, A.B. (Gustavus Adolphus Coll.) 1957. [Univ. of North Dakota School of Medicine]. Bismark, N. Dak. Tihen, William Spear, s.B. (Univ. of Wyoming) 1959. Laramie, Wyo. ‡Tomlinson, Jerry Allan (Harvard Coll.) Marion, Ind. *Towle, Murray Albert, A.B. (Dartmouth Coll.) 1959. [Dartmouth Medical School]. Hampton, N. H. Troost, Bradley Todd, s.B. (Yale Univ.) 1959. Mankato, Minn. Turkington, Roger Wayne, A.B. (Wesleyan Univ.) 1958. Manchester, Conn. Uahwatanasakul, Yong, A.B. 1959. Bangkok, Thailand Vermillion, Clinton Dale, A.B. (Univ. of Kansas) 1958. Goodland, Kans. Vineyard, Gordon Campbell, B.E. (Yale Univ.) 1959. Little Rock, Ark. *Virnelli, Frank Robert, A.B. (Dartmouth Coll.) 1960. [Dartmouth Medical School. Saugus Warshaw, Andrew Louis, A.B. 1959. Iamaica, N. Y. Whitlow, Dennis Reed, A.B. (Columbia Univ.) 1959. Pocatello, Idaho Williams, Gordon Harold, A.B. 1959. Kansas City, Kans. Wilson, Norman Louis, Jr., s.B. (Yale Univ.) 1959. Buffalo, N.Y. Winter, William Gordon, Jr., A.B. (Pomona Coll.) 1958. Fresno, Calif. Wolf, Katharine Corwin Poole, A.B. (Radcliffe Coll.) 1959. Pasadena, Calif. Wolf, Marshall Alan, A.B. 1958. Chicago, Ill.

Zimmerman, Theodore Samuel, A.B. 1959. Zinner, John, A.B. (Amherst Coll.) 1958.

Clayton, Mo. Great Neck, N. Y.

THIRD YEAR CLASS (1964)

Aldredge, Horatio Ransome, 3d, A.B. (The Rice Institute) 1960.

Santa Monica, Calif.

°Anderson, Kathryn Duncan, B.A. (Univ. of Cambridge) 1961. [Univ. of Cambridge, Faculty of Medicine].

Westbury-on-Trym, Bristol, England

*Ashby, Thomas Martin, A.B. (Dartmouth Coll.) 1960, B.MED.SCI. (ibid.) 1962. [Dartmouth Medical School]. Parma, Idaho

*Bache, Robert James, A.B. (Univ. of North Dakota) 1960, S.M. (ibid.) 1961, S.B. IN MED. (ibid.) 1962. [Univ. of North Dakota School of Red Lake Falls, Minn. Medicine].

*Bartlett, Donald, Jr., A.B. (Dartmouth Coll.) 1959. [Dartmouth Medical School]. Norwich, Vt.

§Bennett, Terry Michael (Univ. of Southern Calif.).

San Marino, Calif.

Bernard, Roger Peterick, A.B. (Yale Univ.) 1960. Torrington, Conn. Block, Peter Carl, A.B. (Amherst Coll.) 1959. Baltimore, Md. Bookwalter, John Robert, A.B. (Amherst Coll.) 1960.

Columbiana, Ohio

Bradford, Michael Jay, A.B. (Yale Univ.) 1960. Brooklyn, N. Y. Fall River Brown, Borden, A.B. 1960.

Burns, Arlen Birk, s.B. (Southern Methodist Univ.) 1960.

Dallas, Texas

Buttenwieser, Paul Arthur, A.B. 1960. New York, N.Y. Byar, David Peery, A.B. (Emory Univ.) 1960. Maryville, Tenn. *Cantlie, Marie Françoise Hélène Bertrand, A.B. (Collège Marie de France) 1960. [Univ. of Montreal Faculty of Medicine].

Montreal, P.Q., Canada

Cantril, Simeon Thain, A.B. (Dartmouth Coll.) 1960. Edmonds, Wash. Carpenter, David Orlo, A.B. 1959 Granada, Minn.

‡ Admitted on basis of three years' college work.

§ Admitted on basis of four years' college work.

° Transferred to the second year class.

N.B. In those cases where the college name is omitted, the college is Harvard; where the state is omitted, the state is Massachusetts.

Chapin, David Saul, A.B. 1960. Buffalo, N. Y. Chapman, Paul Hamilton, s.B. (Yale Univ.) 1960.

Cuyahoga Falls, Ohio

Chase, Lewis Robert, A.B. (Princeton Univ.) 1960. Ho Ho Kus, N. J. Chylack, Leo Theodore, Jr., s.B. (Yale Univ.) 1960. Allentown, Pa. Cooper, Joel David, A.B. 1960. Charleston, W. Va.

Corlette, Marvin Brown, Jr., A.B. (Stanford Univ.) 1960.

Pasadena, Calif.

Cox, William Vernon, 2d, A.B. (Princeton Univ.) 1959.

Auburn, Maine

‡Cranton, Elmer Mitchell (Univ. of Colorado). Groveland Crystal, Raymond Frederick, A.B. (Yale Univ.) 1960.

Great Neck, N. Y.

Dean, Andrew Griswold, A.B. (Oberlin Coll.) 1960. Fairport, N. Y. *Dorsey, Joseph Leo, A.B. (Coll. of the Holy Cross) 1960, B.MED.SCI. (Dartmouth Coll.) 1962. [Dartmouth Medical School].

Scranton, Pa.

Eaton, Stanley Boyd, Jr., A.B. (Duke Univ.) 1960. Huntington, W. Va. Ehrlich, Ira Bert, A.B. (Stanford Univ.) 1960. Phoenix, Ariz. Ettinger, Bruce, A.B. (Columbia Univ.) 1960. Jamaica, N. Y. Falk, George Alan, A.B. 1960. New York, N. Y.

Flickinger, Charles John, A.B. (Dartmouth Coll.) 1960.

Bethlehem, Pa.

Frederick, Elizabeth Warren, A.B. (Smith Coll.) 1959. Milton Fung, Christopher Hing Kui, A.B. 1960. Hong Kong Galdabini, James Joseph, A.B. (Coll. of the Holy Cross) 1960.

Milwaukee, Wis.

°Ghez De Castelnuovo, Claude Paul Joseph, васс.-ès-sci.-мéd. (Univ. of Geneva) première partie, 1959; BACC.-ÈS-SCI.-MÉD. (ibid.) deuxième partie, 1961. [Univ. of Geneva, Faculty of Medicine].

Geneva, Switzerland

Cleveland Heights, Ohio Givelber, Harry Michael, A.B. 1960. Glickman, Robert Morris, A.B. (Amberst Coll.) 1960.

Brooklyn, N. Y.

Guggenheim, Stephen Joel, A.B. 1960. Denver, Colo. Hartmann, Lawrence Maximilian, A.B. 1958, B.A. (Univ. of Oxford) 1960. New York, N. Y.

Havens, David Ward, A.B. (Univ. of Rochester) 1960.

Westhampton Beach, N. Y.

*Heisterkamp, David Vanderbilt, A.B. (Dartmouth Coll.) 1961, B.MED.

sci. (ibid.) 1962 [Dartmouth Medical School]. Wynnewood, Pa. Himmelhoch, Jonathan Moses, A.B. 1960. Detroit, Mich. Holloway, George Allen, Jr., A.B. (Yale Univ.) 1960. New Canaan, Conn. Hopkins, Cyrus Clark, s.B. (Univ. of Michigan) 1959. Ann Arbor, Mich. Hopkins, Robert Parker, A.B. (Amberst Coll.) 1960. Hingham Horowitz, Stanley Alan, A.B. (Columbia Univ.) 1960. Brooklyn, N. Y. Hoyer, John Richard, A.B. (Grinnell Coll.) 1960. Windom, Minn. Hulley, Stephen Benjamin, A.B. (Amberst Coll.) 1960. Hyannis Hurd, Joseph Kindall, Jr., A.B. 1960. Pueblo, Colo. *Hutton, John James, Jr., A.B. 1958. [Univ. of Kentucky School of Medicine]. Ashland, Ky. Hyde, Ernest Frederick, Jr., A.B. (Kenyon Coll.) 1960. Carmichaels, Pa. Irvine, Alexander Rodman, A.B. (Princeton Univ.) 1960. Beverly Hills, Calif. Irvine, Florence Pitkin Cranston, A.B. (Mt. Holyoke Coll.) 1960. Claremont, Calif. Brooklyn, N. Y. Jackman, Jay Myron, A.B. (Columbia Univ.) 1960. Jackson, Stephen Harvey, A.B. (Princeton Univ.) 1960. Jersey City, N. J. Jolly, Margaret Ann Haliburton, s.B. (Univ. of Chicago) 1959. Allen, Okla. Kaltreider, Nancy Bowen, A.B. (Univ. of Connecticut) 1960. Wellesley Hills *Kane, John Gregory, A.B. (Dartmouth Coll.) 1959, B.MED.SCI. (ibid.) 1962. [Dartmouth Medical School]. Chevy Chase, Md. Karchmer, Adolf Waller, A.B. (Princeton Univ.) 1960. Memphis, Tenn. Keller, Albert Richard, A.B. 1960. Redmond, Wash. Kim, Joseph Chol, A.B. (St. Anselm's Coll.) 1958. Seoul, Korea Kirchman, Ernest Henry, A.B. (Princeton Univ.) 1960. Jamaica, N. Y. Latt, Samuel Arch, s.B. (Massachusetts Inst. of Technology) 1960. Harrisburg, Pa. Lawrence, Robert Swan, A.B. 1960. West Hartford, Conn.

Leff, Robert, A.B. (Columbia Univ.) 1960.

Brooklyn, N. Y.
Leighton, Charles Cutler, A.B. (Colby Coll.) 1960.

Newton Centre *Leval, Valerie Ann, A.B. (Radcliffe Coll.) 1956, B. MED. SCI. (Dartmouth Coll.) 1962. [Dartmouth Medical School]. New York, N. Y. Washington, D. C. Levin, Myron Jay, A.B. 1960. London, Wayne Paul, A.B. (Washington and Jefferson Coll.) 1960. Johnstown, Pa. Lynch, Robert Emmett, 3d, A.B. 1960. Atlanta, Ga. McCarley, Robert William, A.B. 1959. Mayfield, Ky. MacGregor, Rob Roy, 3d, A.B. (Princeton Univ.) 1960. Glen Ridge, N. J. *McIntosh, Edward Noel, s.B. (Univ. of Michigan) 1960. [Univ. of David City, Neb. Nebraska Coll. of Medicine]. McReynolds, John Stephens, A.B. (Princeton Univ.) 1960. Houston, Texas *Manchester, Gary Haves, A.B. (Dartmouth Coll.) 1961, B. MED. SCI. (ibid.) 1962. [Dartmouth Medical School]. Washington, D. C. Mazer, Frederick Louis, A.B. (Yale Univ.) 1960. Longmeadow Miller, Bruce Lawrence, s.B. (Univ. of New Hampshire) 1960. Hinsdale, N. H. Mitchell, Donald Waldo, A.B. (Stanford Univ.) 1960. Palo Alto, Calif. Mueller, John Charles, A.B. 1960. Sterling, Ill. Nieland, Michael Louis, A.B. 1960. Chestnut Hill Northrup, Robert Smither, A.B. (Yale Univ.) 1960. Westfield, N. Y. °Nuzum, Claude Thomas, A.B. 1959. [Univ. of Cambridge, Faculty of Medicine]. Lexington, Ky.

O'Connor, Robert Emmett, A.B. (Princeton Univ.) 1957.

Charleston, W. Va.

O'Neil, William Anthony, s.B. (Boston Coll.) 1954, s.M. (ibid.) 1960. Franklin

Ontjes, David Ainsworth, A.B. (*Univ. of Kansas*) 1959. [Univ. of Oxford, Faculty of Medicine]. *Hutchinson, Kans.*

*Peter, Georges, A.B. 1959, B. MED. SCI. (Dartmouth Coll.) 1962. [Dartmouth Medical School]. Bellport, N. Y.

Pfeffer, Robert Isa, A.B. (Princeton Univ.) 1960. Eggertsville, N. Y. Pitt, Jane Ries, A.B. (Radcliffe Coll.) 1960. Forest Hills, N. Y.

*Prouty, Willard Robert, 3d, A.B. (Dartmouth Coll.) 1960, B. MED.

*Provisor, Arthur Joel, A.B. (Dartmouth Coll.) 1961, B. MED. SCI.

Brockton

sci. (ibid.) 1962. [Dartmouth Medical School].

(ibid.) 1962. [Dartmouth Medical School]. Passiac, N. J. Purves, Dale, A.B. (Yale Univ.) 1960. Philadelphia, Pa. Putnam, Samuel Morse, A.B. 1960. Concord Rapo, Seppo Ensio, s.B. (Wheaton Coll.) 1960. Quincy Rasminsky, Michael, A.B. (Univ. of Toronto) 1959. Ottawa, Ont., Canada Raye, John Ramsey, A.B. (Amherst Coll.) 1960. Wellesley Hills § Ream, John Rodney, Jr. (Reed Coll., U. S. Military Academy, Univ. of Utah). Dingle, Idaho Reynolds, Robert Edgar, A.B. (Yale Univ.) 1960. Xenia, Obio Rhoads, Jonathan Evans, Jr., A.B. (Haverford Coll.) 1960. Philadelphia, Pa. Riddle, Matthew Casey, Jr., A.B. (Yale Univ.) 1960. Portland, Oregon Rodarte, Joseph Robert, A.B. (The Rice Institute) 1960. Temple, Texas *Rosefsky, Jonathan Bruce, A.B. (Cornell Univ.) 1960, B. MED. SCI. (Dartmouth Coll.) 1962. [Dartmouth Medical School]. Binghamton, N. Y. Rubenstein, Joel Jay, A.B. 1960. Newton Sabin, James Evan, A.B. 1960. New York, N. Y. Sanders, Donald Benjamin, s.B. (Univ. of the South) 1959. Sumter, S. C. *Sarosi, George Andrew, A.B. (Univ. of North Dakota) 1961, S.B. IN MED. (ibid.) 1962. [Univ. of North Dakota School of Medicine]. Grand Forks, N. Dak. *Schmidt, David Dean, A.B. (Dartmouth Coll.) 1961, B. MED. SCI. (ibid.) 1962. [Dartmouth Medical School]. Denver, Colo. Schoessler, Mary Anne, A.B. (Willamette Univ.) 1957. Yakima, Wash. New York, N. Y. Schrag, Peter Edward, A.B. 1960. Schroeder, Steven Alfred, A.B. (Stanford Univ.) 1960. El Cerrito, Calif. Scott, Robert Augustine Thornton, A.B. 1960. Lexington, Ky. Seidman, Joel Myron, A.B. 1960. Framingham Rockfall, Conn. Shackney, Stanley Emanuel, A.B. 1960. Shapiro, Arthur Gerald, A.B. (Columbia Univ.) 1960. Belle Harbor, N. Y.

*Sheehan, William Charles, A.B. (Dartmouth Coll.) 1961, B. MED. SCI. (ibid.) 1962. [Dartmouth Medical School]. New Britain, Conn. *Skerker, Leonard Ben, A.B. 1960, B. MED. SCI. (Dartmouth Coll.) 1962. [Dartmouth Medical School]. Westfield Snyder, Cecil John, s.B. (Stanford Univ.) 1959. Winfield, Kans. Steck, Theodore Lyle, s.B. (Lawrence Coll.) 1960. Highland Park, Ill. *Steinberg, David, A.B. (Dartmouth Coll.) 1961, B. MED. SCI. (ibid.) 1962. [Dartmouth Medical School]. Flushing, N. Y. Strathmann, William Danford, A.B. (Pomona Coll.) 1960. Claremont, Calif. Swarr, James Howard, s.B. (Juniata Coll.) 1960. Lititz, Pa. *Tapper, Theodore Samuel, A.B. (Dartmouth Coll.) 1961, B. MED. SCI. (ibid.) 1962. [Dartmouth Medical School]. Chicago, Ill. Thach, William Thomas, Jr., A.B. (Princeton Univ.) 1959. Oklahoma City, Okla. Thum, Charles Wesley, A.B. 1960. Claremont, Calif. Tudor, John Mack, Jr., A.B. (Hendrix Coll.) 1960. North Little Rock, Ark. Van Heeckeren, Daniel Wigbold, A.B. (Colby Coll.) 1959. The Hague, Netherlands Vernon, Thomas Martin, Jr., A.B. (Duke Univ.) 1960. West Palm Beach, Fla. Volpe, Joseph John, A.B. (Bowdoin Coll.) 1960. Salem Wallin, Victor William, Jr., A.B. (Princeton Univ.) 1960. Milwaukee, Wis. Ward, Samuel Porter, A.B. (Amherst Coll.) 1959. Lake Bluff, Ill. *Wattleworth, Anthony Steele, A.B. (Dartmouth Coll.) 1961, B. MED. sci. (ibid.) 1962. [Dartmouth Medical School]. Galena, Ill. *Weintraub, William Henry, A.B. (Dartmouth Coll.) 1961, B. MED. SCI. (ibid.) 1962. [Dartmouth Medical School]. Rochester, N. Y. Wiese, William Hastings, A.B. (Yale Univ.) 1960. Wellesley Hills Williams, Frank Mathews, B.E. (Yale Univ.) 1960. Bartow, Fla.

Witebsky, Frank Gilbert, A.B. 1960.

Wolpow, Edward Ray, A.B. (Columbia Univ.) 1959. Brooklyn, N. Y.

Young, Lowell Sung-Yi, A.B. (Princeton Univ.) 1960.

Honolulu, Hawaii

*Zacharia, Laurence Alan, A.B. (Dartmouth Coll.) 1961, B. MED. SCI. (ibid.) 1962. [Dartmouth Medical School]. Omaha, Neb. Zimmerman, Phil George, A.B. (Ohio Univ.) 1960. Holgate, Ohio

*Zipes, Douglas Peter, A.B. (Dartmouth Coll.) 1961, B. MED. SCI. (ibid.) 1962. [Dartmouth Medical School]. Pleasantville, N. Y. Zuerner, Richard Taylor, A.B. 1960. Norwich, Conn.

SECOND YEAR CLASS (1965)

Aadalen, Richard Jerome, A.B. 1961. Red Wing, Minn. Adams, Herbert Dan, A.B. (Yale Univ.) 1961. Wellesley Hills Anderson, Larry Simon, A.B. (Univ. of Washington) 1961.

Santa Rosa, Calif.

Avent, Charles Kirk, 2d, A.B. (Vanderbilt Univ.) 1961. Tupelo, Miss. Baldwin, Stanley Sherman, A.B. (Princeton Univ.) 1961.

Marshfield, Wis. Barry, William Harvey, s.B. (Yale Univ.) 1961. Tulsa, Okla. Bernstein, Robert S, A.B. (Columbia Univ.) 1961. New York, N. Y. Black, Ira Barrie, A.B. (Columbia Univ.) 1961. Bronx, N. Y. Bodenheimer, Thomas Siegmund, A.B. 1961. Salt Lake City, Utah Brisman, Ronald, A.B. 1961. Brooklyn, N. Y. Brown, Stephen Morris, A.B. (Princeton Univ.) 1961. Jamaica, N. Y. Bunim, Lesley Schild, A.B. (Barnard Coll.) 1961. Chevy Chase, Md. Burge, Boyce William, s.B. (Univ. of Nevada) 1961. Sparks, Nev. Burstein, Nelson Allan, A.B. (Oberlin Coll.) 1961. Toledo, Ohio Carmody, John Lancaster, A.B. (Yale Univ.) 1961. Paxton Casella, Charles Wickersham, A.B. 1961. Naugatuck, Conn. Chabner, Bruce Allan, A.B. (Yale Univ.) 1961. Shelbyville, Ill. Clark, William Dexter, A.B. 1961. Cincinnati, Ohio Clermont, Gerald Harvey, s.B. (Coll. of the Holy Cross) 1961. Adams Cohen, Max Harry, A.B. (Columbia Univ.) 1961. Macon, Ga. Cooke, John Cary, 3d, A.B. (Rice Univ.) 1961. Abilene, Texas Cornell, Richard, A.B. (Bowdoin Coll.) 1961. Fall River Cox, Paul Milton, Jr., s.B. (Massachusetts Inst. of Technol.) 1961.

Sayreville, N. J.

Crumpacker, Clyde S, 2d, A.B. (Cornel Univ.) 1961. Tabor, N. J. Denckla, William Donner, A.B. 1956. Washington, D. C. Donahower, George Franklin, A.B. (Denison Univ.) 1961.

Shaker Heights, Ohio

s Special Student.

[‡] Admitted on the basis of three years' college work.

N.B. In those cases where the college name is omitted, the college is Harvard; where the state is omitted, the state is Massachusetts.

DuBrow, Edward Lewis, A.B. (Princeton Univ.) 1961. Hartford, Conn. Dunkman, William Bruce, A.B. (Amherst Coll.) 1961. Rochester, N. Y. Farhad, Mina, A.B. (Barnard Coll.) 1957, A.M. (Radcliffe Coll.) 1958. Teheran, Iran Fisher, George Underwood, s.B. (Wittenberg Univ.) 1961. New Castle, Ind. Fisher, Morris Alan, A.B. (Yale Univ.) 1961. New York, N. Y. Fisher, Thomas Leonard, A.B. 1959. Colima, Mexico Brooklyn, N. Y. Gershon, Elliot Sheldon, A.B. 1961. Gilmore, Edward Bettle, A.B. (Wesleyan Univ.) 1961. Clairton, Pa. New York, N. Y. Godfrey, Henry Philip, A.B. 1961. Goldstein, Robert Edward, A.B. 1961. Rochester, N. Y. Greene, Martin Lee, A.B. 1961. Omaha, Nebr. Guiney, Timothy Edward, s.B. (Boston Coll.) 1961. Canton Gunn, Robert Burns, s.B. (Univ. of Michigan) 1961. Washington, D. C. Gurwith, Marc Joseph, A.B. (Yale Univ.) 1961. Mission, Kans. Hajek, Joseph Valentine, A.B. 1958. New York, N. Y. Haughie, Glenn Elmer, A.B. 1961. Clarkfield, Minn. Hollenberg, Robert David, A.B. (Swarthmore Coll.) 1961. Winnipeg, Manitoba, Canada Hufnagel, Dorothy Anne, A.B. (Rutgers Univ.) 1957, A.M. (Columbia Univ.) 1959. Jersey City, N. J. Hughes, Edward Miles, A.B. (Wesleyan Univ.) 1961. Glen Ridge, N. J. Hyland, Robert Norman, A.B. (Northwestern Univ.) 1960. Evanston, Ill. Jacobson, Eric Steven, A.B. (Northwestern Univ.) 1961. Ontario, Calif. Joseph, Neil Howard, s.B. (Union Coll.) 1961. Jamaica, N. Y. Kane, Robert Lewis, A.B. (Columbia Univ.) 1961. Valley Stream, N.Y. Kapelovitz, Leonard Herman, s.B. (Univ. of Chicago) 1961. Dickinson, N. Dak. Kenyon, Charles Dickson, A.B. (DePauw Univ.) 1961. Cambridge City, Ind. King, Alan Shelly, s.B. (Juniata Coll.) 1961. Rochester, N. H. Kondon, John Joseph, Jr., A.B. 1961. Peabody ‡Krenis, Laurence Joel (New York Univ.). North Bellmore, N. Y.

Lane, Joseph Michael, A.B. (Columbia Univ.) 1961. Great Neck, N. Y.

Park Ridge, Ill.

Kuehl, Walter Michael, A.B. 1961.

Tucson, Ariz.

Lange, Gretchen, A.B. (Radcliffe Coll.) 1959.

Langer, Joel Elliott, s.B. (The City Coll. of New York) 1961. New York, N.Y. Langer, Terry, A.B. (New York Univ.) 1961. Jamaica, N. Y. Langston, Charles Spencer, A.B. 1961. Great Neck, N. Y. Levin, Arthur Lawrence, A.B. 1961. Newton Centre sLinder, Malte Michael (Canisius-Kolleg Gymnasium Zu Berlin, Germany). [Free Univ. of Berlin, Germany]. Berlin, Germany Loescher, Richard Alvin, A.B. (DePauw Univ.) 1961. Hinsdale, Ill. McCrae, Charles Rodger, A.B. 1961. Warren, Ohio McKay, David Andrew, s.B., (Allegheny Coll.) 1961. Sharpsville, Pa. McNamara, John Joseph, s.B. (Boston Coll.) 1961. Milton Mallory, Andrew, A.B. (Amberst Coll.) 1961. Havertown, Pa. Mark, Roger Greenwood, s.B. (Massachusetts Inst. of Technol.) 1960. Chestnut Hill Mills, John, s.B. (Univ. of Chicago) 1961. Rochester, N. Y. Mueller, Kenneth Howard, s.B. (Carroll Coll.) 1961. Hutisford, Wis. Muzzarelli, Uberto Tommaso, A.B. (Amherst Coll.) 1961. Fermo, Italy Neeley, George Richard, A.B. (Stanford Univ.) 1961. Altadena, Calif. Nelson, James Alonzo, A.B. 1961. Cherokee, Iowa Oberlander, Samuel Guy, A.B. (Hobart Coll.) 1961. Brooklyn, N. Y. Omenn, Gilbert Stanley, A.B. (Princeton Univ.) 1961. Chester, Pa. Pollock, Edward Jay, A.B. (Northwestern Univ.) 1961. Skokie, Ill. Poser, Gary Evan, A.B. (Cornell Univ.) 1961. Rocky River, Ohio Quereau, Marcia Musser, A.B. (Vassar Coll.) 1961. Wyomissing, Pa. Cedarhurst, N. Y. Ratzan, Kenneth Roy, A.B. (Amherst Coll.) 1961. Reider, Arthur Elliott, A.B. 1958. San Francisco, Calif. Reiling, Walter Anthony, Jr., s.B. (Univ. of Dayton) 1961. Dayton, Ohio Rhoads, George Grant, A.B. (Haverford Coll.) 1961. Philadelphia, Pa. Riker, Jeffrey Bruce, A.B. (Columbia Univ.) 1961. Flushing, N. Y. Roath, Michael Steven, A.B. (Stanford Univ.) 1961. Rolling Hills City, Calif. Roots, Logan Herbert, A.B. (Hamilton Coll.) 1961. White Plains, N. Y. Rosenberg, Eugene Barry, A.B. 1961. Brooklyn, N. Y. Roth, Loren Henry, A.B. (Cornell Univ.) 1961. Shaker Heights, Ohio Schniewind, Henry Ernest, A.B. 1961. Locust Valley, N. Y. Schnur, James Alfred, A.B. (New York Univ.) 1961. Yonkers, N.Y.

\$Schulman, Joseph Daniel (Brooklyn Coll.). Brooklyn, N. Y. Schultze, Claus Otto, DIPL. CHEM. (Univ. of Heidelberg, Germany) 1957, DR. RER. NAT. (ibid.) 1960. [Univ. of Freiburg, Germany]. Heidelberg, Germany Dorchester Scolnick, Edward Mark, A.B. 1961. Seder, Richard Henry, A.B. 1960. Worcester Sterling, Ill. Selden, Richard, A.B. (Northwestern Univ.) 1961. Shurin, Paul Anton, A.B. (Brooklyn Coll.) 1961. Ardsley, N. Y. Simmers, William Moody, A.B. (Princeton Univ.) 1961. Cambridge Simpson, Karen Evelyn, A.B. (Swarthmore Coll.) 1961. Pleasant Ridge, Mich. Smith, Thomas Woodward, A.B. 1958. Akron, Ohio Snyder, Peter Joseph, A.B. (Williams Coll.) 1961. Wilmington, Del. Sox, Harold Carleton, Jr., s.B. (Stanford Univ.) 1961. Atherton, Calif. Stachura, Maximillian Edward, A.B. (Hamilton Coll.) 1961. Buffalo, N. Y. Stage, David Elliott, A.B. (Yale Univ.) 1961. Santa Ana, Calif. Stein, Jeffrey Alan, A.B. 1960. Jamaica, N.Y. Stenson, Robert Elliot, s.B. (Massachusetts Inst. of Technol.) 1960. Philadelphia, Pa. Stewart, Douglas Keith, s.B. (California Inst. of Technol.) 1961.

Stewart, Douglas Keith, s.B. (California Inst. of Technol.) 1961.

Burlingame, Calif.

Stewart, Michael Maccracken, A.B. (Princeton Univ.) 1957.

Princeton, N. J.

Stiglitz, Mark Lawrence, A.B. (Amherst Coll.) 1961. Gary, Ind. Stoll, Ralph William, s.B. (Univ. of California) 1958. Salamanca, N. Y. Strober, Samuel, A.B. (Columbia Univ.) 1961. Brooklyn, N. Y. Sun, Andrew Suian On, s.B. (Univ. of California) 1961.

San Francisco, Calif.

Swett, Chester Parker, Jr., s.B. (Denison Univ.) 1961. Lancaster, Ohio Trelstad, Robert Laurence, A.B. (Columbia Univ.) 1961.

Salem, Oregon

Wandel, Thaddeus Ludwig, A.B. 1961.

Wishner, Stanley Herman, A.B. (Franklin and Marshall Coll.) 1961.

Chester, Pa.

Wolf, Laurence Engler, A.B. 1961. Houston, Texas ‡Young, Philip Earl, A.B. (Univ. of California) 1961.

Los Angeles, Calif.

FIRST YEAR CLASS (1966)

Akins, Carlton Manville, A.B. 1962. Red Wing, Minn. Alexander, William, A.B. (Brandeis Univ.) 1962. White Plains, N. Y. Appel, Eugene Leonard, B.M.E. (Cornell Univ.) 1962.

University Heights, Ohio

Asher, John David, A.B. 1961.

Baker, Alan Robert, A.B. (Bowdoin Coll.) 1962. Great Neck, N. Y.
Bauman, Dennis Jerry, A.B. (Williams Coll.) 1962. Rochester, N. Y.
Beck, Laurence Holland, A.B. (Amherst Coll.) 1962. Wilmington, Del.
Bell, Russell Sloan, A.B. (Princeton Univ.) 1961.

Bissell, Dwight Montgomery, Jr., A.B. 1962.

Bradley, Jane Elizabeth, A.B. (Bryn Mawr Coll.) 1962.

New York, N.Y.

Branda, Richard Frank, s.B. (Univ. of Wisconsin) 1962.

River Grove, Ill.

Breeden, Clara Jane, A.B. (Stanford Univ.) 1962.

Brener, Bruce Jeffrey, A.B. (Yale Univ.) 1962.

Buchwald, Irwin Allan, A.B. (Amherst Coll.) 1962.

Brooklyn, N. Y.
Carleton, William Michael, A.B. (Yale Univ.) 1962.

Providence, R. I.
Cassem, Ned Hughes, A.B. (St. Louis Univ.) 1959, Ph.L. (ibid.) 1960,

A.M. (ibid.) 1961.

Omaha, Neb.

Cihak, Robert James, A.B. (Univ. of Notre Dame) 1962.

Yankton, S. Dak.

Crounse, Jerome Burkey, A.B. 1962. Cincinnati, Ohio

Crowell, Robert Morehead, A.B. (Princeton Univ.) 1962.

College Park, Md.

Cutler, Bruce St. John, A.B. (Princeton Univ.) 1962. Newark, Del. Dale, David Chandler, S.B. (Carson-Newman Coll.) 1962. Atlanta, Ga. Daniels, Gilbert Harlan, S.B. (Yale Univ.) 1962. Malverne, N. Y. DeLong, Mahlon Robert, A.B. (Stanford Univ.) 1961. Balboa, Calif. Donahue, Valentina Elizabeth Clark, A.B. (Barnard Coll.) 1962.

Brooklyn, N. Y.

Finseth, Frederick James, A.B. (Stanford Univ.) 1962. Portland, Oregon Fletcher, Robert Hillman, A.B. (Wesleyan Univ.) 1962. Newtown, Pa. Friedman, Joel Paul, A.B. (Princeton Univ.) 1962. Palm Springs, Calif.

‡ Admitted on the basis of three years' college work.

N.B. In those cases where the college name is omitted, the college is Harvard; where the state is omitted, the state is Massachusetts.

Galin, Richard Safir, A.B. (Univ. of Wisconsin) 1962. Milwaukee, Wis. Gettelfinger, Thomas Clement, s.B. (Univ. of Notre Dame) 1962.

Louisville, Ky.

Gilmour, David Pollock, s.B. (Davidson Coll.) 1962. Charlotte, N. C. Ginsberg, Myron David, A.B. (Wesleyan Univ.) 1961. Denver, Colo. Glass, Jonathan, s.B. (Massachusetts Inst. of Technology) 1962.

New Rochelle, N.Y.

Glick, Thomas Harter Bachrach, A.B. 1961. Darien, Conn. Goetzl, Edward Joseph, A.B. (Amherst Coll.) 1962. Amherst Goldman, Thomas Carl, A.B. (Cornell Univ.) 1962. Brooklyn, N. Y. Gordon, James Harold, A.B. (Williams Coll.) 1962. Winchester Gordon, James Samuel, A.B. 1962. New York, N. Y. Gottlieb, Jeffrey Arnold, A.B. (Amberst Coll.) 1962.

Mount Vernon, N.Y.

Grave, Gilman Drew, A.B. 1962. Greenes, Robert Arthur, A.B. (Univ. of Michigan) 1962.

University Heights, Ohio

Guarino, Arthur Victor, A.B. (Coll. of the Holy Cross) 1962.

Brooklyn, N. Y.

Rye, N. Y.

Hannah, Richard Jackson, A.B. (Dartmouth Coll.) 1962. Weston Hardman, George Lynn, A.B. 1962. Philadelphia, Pa. Hatem, Charles Joseph, s.B. (Boston Coll.) 1962. Lawrence Hayes, Charles Robert, A.B. (Yale Univ.) 1962. Keytesville, Mo. Hrehorovich, Victor Rostislav, A.B. 1962. Bronx, N. Y. Hughes, Edward Francis Xavier, A.B. (Amberst Coll.) 1962.

Roslindale

Ilfeld, Frederic William, Jr., A.B. (Yale Univ.) 1962.

Beverly Hills, Calif.

‡Irwin, Robert Joseph (Denison Univ.) Cleveland, Ohio Jacobs, Edward Ellis, Jr., A.B. (Princeton Univ.) 1962. Buffalo, N. Y. Jurgeleit, Herbert Clement, A.B. (Yale Univ.) 1962. Townshend, Vt. Kaufman, Jay Henry, A.B. (Princeton Univ.) 1962.

Rockville Centre, N. Y.

Kempczinski, Richard Francis, A.B. (Coll. of the Holy Cross) 1962.

Brooklyn, N. Y.

Kern, Michael Lee, A.B. (Yale Univ.) 1962. Cincinnati, Ohio Koops, Herbert John, s.B. (United States Military Academy) 1957. Ridgewood, N.Y.

Koran, Lorrin Michael, A.B. 1962.

Los Angeles, Calif.

Krainin, James Mark, A.B. 1962. New York, N. Y. Krant, David Alan, A.B. 1962. Atlanta, Ga. Lamb, Joan Wingate, A.B. (Wellesley Coll.) 1961. Concord Leary, Joan Marie, A.B. (Mt. Holyoke Coll.) 1962. Roslindale Levine, Norman Steven, A.B. (Princeton Univ.) 1962. Paterson, N. J. Levisohn, Steven Ralph, A.B. 1962. Denver, Colo. Loewenstein, Matthew Samuel, s.B. (Union Coll.) 1962. Forest Hills, N. Y. Ludden, John Marten, A.B. 1962. Milwaukee, Wis. Lutz, Michael David, A.B. (Yale Univ.) 1962. Reading, Pa. McNeil, Barbara Joyce, A.B. (Emmanuel Coll.) 1962. Dorchester Mark, Eugene Jerome, A.B. (Oberlin Coll.) 1962. Kent, Ohio Marmor, Michael Franklin, A.B. 1962. Los Angeles, Calif. Mastroianni, Nicholas Anthony, Jr., A.B. 1962. Hopedale Mendelsohn, George Emanuel, A.B. 1962. Alton, Ill. Micheli, Lyle Joseph, A.B. 1962. Peru, Ill. Mogielnicki, Robert Peter, A.B. (Cornell Univ.) 1962. Hartford, Conn. Molinoff, Perry Brown, A.B. 1962. Smithtown, N.Y. Monath, Thomas Patrick Charles, A.B. 1962. Hewlett Harbor, N.Y. Tehran, Iran Nasr, Hooshang, A.B. (Yale Univ.) 1962. Neisuler, Ross Francis, A.B. 1962. Schenectady, N. Y. Nelson, John Paul, A.B. (Univ. of Notre Dame) 1962. Breckenridge, Minn. Nelson, Scott Haviland, A.B. (Yale Univ.) 1962. Colorado Springs, Colo. Oren, Mark Edward, A.B. (Cornell Univ.) 1962. Catskill, N. Y. Owen, Robert Leo, A.B. (Univ. of Oklahoma) 1962. Bartlesville, Okla. Payne, Douglas DeFrees, A.B. 1962. Dayton, Ohio Pidot, Anne Louise Rassiga, A.B. (Bryn Mawr Coll.) 1962. Long Beach, N. Y. Pincus, Theodore Paul, A.B. (Columbia Univ.) 1961. New York, N. Y. Pine, Michael Boehmer, A.B. (Brandeis Univ.) 1962. New York, N. Y. Pipkin, Robert Donald, A.B. (Regis Coll.) 1962. Denver, Colo. Poole, Thomas Allen, A.B. (Univ. of Pennsylvania) 1962. Port Allegany, Pa. Proskauer, Stephen, A.B. 1962. Brookline St. Louis, Mo. Ravenscroft, Kent, Jr., A.B. (Yale Univ.) 1962. Reckler, Jon Michael, A.B. 1962. Denver, Colo. Richman, Janice Merle, A.B. (Bryn Mawr Coll.) 1962. New York, N.Y.

Roglieri, John Louis, s.B. (Lehigh Univ.) 1960. Scotch Plains, N. J. Rothenberg, Richard Bernard, A.B. (Columbia Univ.) 1962. Jamaica, N. Y. Rubin, Robert Harold, A.B. (Williams Coll.) 1962. West Hartford, Conn. Scharff, David Edward, A.B. (Yale Univ.) 1962. St. Louis, Mo. Schoenbaum, Stephen Carl, A.B. (Swarthmore Coll.) 1962. Medford Scholand, Joseph Francis, A.B. (St. John Fisher Coll.) 1962. Spencerport, N. Y. Schott, John William, A.B. (Johns Hopkins Univ.) 1962. LaSalle, Ill. Shipley, William Upjohn, A.B. (Yale Univ.) 1962. Norton Siegel, Arthur Jay, A.B. (Swarthmore Coll.) 1962. Orlando, Fla. Siegel, Robert Charles, A.B. (Princeton Univ.) 1962. Kingston, Pa. Smith, Richard Wilbur, A.B. 1962. Rochester, N. Y. Steinberg, Alfred David, A.B. (Princeton Univ.) 1962. Great Neck, N. Y. Stevenson, John Eric, A.B. (St. Olaf Coll.) 1962. Viroqua, Wis. Strong, Steven Roger, s.B. (Union Coll.) 1962. Schenectady, N.Y.Stubblefield, Phillip George, A.B. 1962. Liberal, Kans. Sweetland, Ralph Coburn, A.B. 1962. Cambridge Teichholz, Louis Evan, A.B. 1962. Passaic, N. J. Templeton, John Marks, Jr., A.B. (Yale Univ.) 1962. Englewood, N. J. Torop, Paul, A.B. (Yale Univ.) 1962. Yonkers, N. Y. Wegman, David Howe (Swarthmore Coll.) Ann Arbor, Mich. Weiner, Michael Samuel, A.B. 1962. Williamsville, N. Y. Weintraub, Bruce Dale, A.B. (Princeton Univ.) 1962. Buffalo, N.Y. Winig, Paul Ira, A.B. 1962. Trenton, N. J. Wood, William Costin, s.B. (Wheaton Coll.) 1962. Charlotte, N. C. Wright, Suzanne Estelle, A.B. (Swarthmore Coll.) 1962. Keswick, Va.

MEDICAL SCHOO	L	Su	MN	/IAF	RY	190	52-	1963
Fourth Year.								131
Third Year .	•	•		•				142
Second Year	•		•	•	•	•	•	116
First Year .		•	•	•	•		•	116
Total .								505

Dayton, Ohio

Young, Dean Francis, A.B. (Kenyon Coll.) 1962.

Colleges Represented

Allegheny College	2	Haverford College	4
	20	Heidelberg, University of	
Augustana Theological Seminary	1	Hendrix College]
Barnard College	3	Hobart College	
Bismark Junior College	I	Holy Cross, College of the	
Boston College		Johns Hopkins University	
Roston University	5	Juniata College	
Boston University	I	Vancas University of	
Bowdoin College	4	Kansas, University of	
Brandeis University	3	Kent State University	
Brooklyn College	2	Kenyon College	-
Bryn Mawr College	3	Lawrence College	1
California Institute of Tech-		Lehigh University	
nology	3	Los Angeles City College	
nology	I	Marie de France, Collège (Mont-	
California, University of (at		real)	
Los Angeles)	2	real)	
California, University of South-		nology	
ern	2	Michigan, University of	
Cambridge, University of (Eng-		Minnesota, University of	
land)	2	Missouri, University of	
Canisius-Kolleg (Berlin, Ger-	-	Mount Holyoke College	
many)	.		•
many)	I	National Defense Medical Cen-	
Carleton College	I	ter (Formosa)	
Carroll College	I	Nevada, University of]
Carson-Newman College	I	New Asia College (Hong	
Centre College of Kentucky	I	Kong)	1
Chicago, University of	4	New Hampshire, University of	1
Colby College	2	New York, The City College of	1
Colgate University	I	New York University	4
Colorado, University of	2	North Dakota, University of	(
0 1 1 TT ' '	2 I	North Dakota Agricultural Col-	
Connecticut, University of	I	lege]
Cornell University	9	Northwestern University	4
D 1 0 11	30 l	Notre Dame, University of	4
Davidson College	2	Oberlin College	4
Dayton, University of	ı	Ohio University	
Denison University	- 1	Oklahoma, University of	
DePauw University	3	Oxford, University of (Eng-	
Duke University	2	land)	
Emmanuel College	_	land)	1
Emmanuel Collège	I	Paris, Université de (à La Sor-	
Emory University	2	bonne)	1
Franklin and Marshall College.	I	Pennsylvania, University of]
Geneva, University of	1	Pomona College	3
Grinnell College	I	Portland State College	1
Gustavus Adolphus College	I	Princeton University	39
Hamilton College	3	Radcliffe College	6
Harvard University 1	35	Reed College	2

COLLEGES REPRESENTED

Regis College	Vassar College 1
Rice University 4	Washington, University of 1
Rochester, University of i	Washington and Jefferson Col-
Rutgers University	lege
Saint Anselm's College 1	Webb Institute of Naval Ar-
Saint John Fisher College 1	chitecture 1
Saint Louis University	Wellesley College 1
Saint Olaf College	Wesleyan University 7
Saint Peter's College	Westminster College
San Francisco, University of	Wheaton College (Illinois) 2
Smith College 2	Willamette University 2
Sorbonne (see Paris)	Williams College 5
South, University of the 2	Wisconsin, University of 3
Southern Methodist University 1	Wittenberg University 1
Stanford University 15	Wyoming, University of 1
Swarthmore College 7	Yale University 44
Texas, East State Teachers	
College	Total 538
Texas, University of	Counted more than once 33
Toronto, University of 1	Total number of students 505
Tulane University	Total number of students 303
Union College 3	Entered advanced standing 53
United States Military Academy 2	Number of colleges represented 120
Utah, University of 1	Number of college graduates 497
Vanderbilt University 2	Number of non-graduates 8

Medical Schools Represented by Students Who Entered Harvard Medical School with Advanced Standing

Alabama, The Medical College		Nebraska, University of, Col-	
of	1	lege of Medicine	I
Baylor University College of		New York University School of	
Medicine	I	Medicine	I
Berlin, Free University of,		North Dakota, University of,	
Faculty of Medicine	I	School of Medicine	7
Cambridge, University of (Eng-		Oxford, University of (England)	I
land)	3	Texas, University of, Medical	
D1 M . 1 1 C 1 1	32	Branch	I
Freiburg, University of, Fac-		Yale University School of	
ulty of Medicine	I	Medicine	I
Geneva, University of	1	Total	54
Kentucky, University of, Col-			דנ
lege of Medicine	I	Total number of students ad-	
Montreal, University of, Fac-		mitted to first year standing	45 I
ulty of Medicine	I	Total	505
	-		

SCHOOL OF DENTAL MEDICINE

STAFF

JAMES L. ACKERMAN, D.D.S., Research Fellow in Orthodontics (through August 31, 1962).

Ernest E. Adams, D.M.D., Instructor in Operative Dentistry.

JOHN T. ALBRIGHT, D.D.S., Clinical Associate in Oral Pathology.

Joel B. Alexander, d.d.s., Research Fellow in Orthodontics (resigned December 5, 1962).

Benjamin H. Amdur, ph.d., Research Associate in Biological Chemistry at the Forsyth Dental Infirmary.

MELVIN A. ANDELL, D.D.S., Instructor in Orthodontics.

DAVID T. ARMSTRONG, PH.D., Research Associate in Anatomy in the School of Dental Medicine.

Douglas A. Atwood, M.D., D.M.D., Instructor in Prosthetic Dentistry.

HARRY K. BAILEY, D.M.D., Instructor in Operative Dentistry.

KENNETH S. BERMAN, D.M.D., Research Fellow in Periodontology.

Arnold E. Binder, d.m.d., Assistant in Orthodontics.

NEVILLE A. BOOTH, D.M.D., Instructor in Oral Surgery.

FINN BRUDEVOLD, D.D.S., Professor of Dentistry at the Forsyth Dental Infirmary.

NORMAN T. BUDDE, D.M.D., Assistant in Pediatric Dentistry.

Duane F. Carbone, d.m.d., Research Fellow in Dental Medicine.

RICHARD S. CARROLL, PH.D., Assistant to the Dean of the School of Dental Medicine for Planning and Development.

GEORGE CHRISTMAN, D.M.D., Instructor in Oral Surgery.

CARL G. COHEN, D.M.D., Instructor in Operative Dentistry.

MELVIN I. COHEN, D.M.D. Associate Clinical Professor of Orthodontics.

Colin Dawes, Ph.D., Research Fellow in Biological Chemistry in the School of Dental Medicine (from October 1, 1962).

Kommer de Man, d.d.s., Research Fellow in Dental Medicine.

HERMAN DE WILDE, M.D., D.M.D., Clinical Associate in Oral Surgery.

SCHOOL OF DENTAL MEDICINE

- ROBERT M. DONAHUE, D.M.D., Research Fellow in Orthodontics.
- JAMES M. DUNNING, D.D.S., M.P.H., Assistant Clinical Professor of Public Health Dentistry.
- HAROLD L. EHRLICH, D.M.D., Assistant Clinical Professor of Prosthetic Dentistry.
- HENRY D. EPSTEIN, D.M.D., Clinical Associate in Dental Medicine.
- JAMES W. ETHERINGTON, D.M.D., Assistant Clinical Professor of Operative Dentistry.
- David J. Farrell, d.M.d., Assistant Clinical Professor of Prosthetic Dentistry.
- NORTON FISHMAN, D.M.D., Instructor in Prosthetic Dentistry.
- JACK B. FLANAGAN, JR., D.M.D., Research Fellow in Orthodontics.
- Anthony A. Gianelly, D.M.D., Research Fellow in Orthodontics.
- Ronald J. Gibbons, Ph.D., Associate in Bacteriology at the Forsyth Dental Infirmary.
- Donald B. Giddon, D.M.D., Instructor in Dental Medicine.
- HAROLD S. GOLD, D.M.D., Instructor in Prosthetic Dentistry.
- PAUL GOLDHABER, D.D.S., Associate Professor of Periodontology and Tutor in Dental Medicine.
- ROY O. GREEP, PH.D., Professor of Anatomy in the School of Dental Medicine and Dean.
- Anna-Marie Grøn, D.D.S., Instructor in Orthodontics.
- Poul Grøn, d.d.m., Associate in Dental Medicine at Forsyth Dental Infirmary.
- Walter C. Guralnick, D.M.D., Assistant Clinical Professor of Oral Surgery.
- CHESTER S. HANDELMAN, D.M.D., Research Fellow in Orthodontics.
- E. Robert Haynes, D.M.D., Instructor in Operative Dentistry.
- JOHN W. Hein, D.M.D., Ph.D., Professor of Dentistry at the Forsyth Dental Infirmary and Director, Forsyth Dental Infirmary.
- PHILIP F. HIRSCH, PH.D., Associate in Pharmacology in the School of Dental Medicine.
- TERRENCE D. HOOVER, D.M.D., Instructor in Pediatric Dentistry.
- LOUISE W. HORD, B.S., Lecturer on Public Health Dentistry.
- MINORU HORIUCHI, D.M.D., Assistant in Dental Medicine.

HARVARD UNIVERSITY

- EDWARD E. HUNT, JR., Ph.D., Assistant Professor of Anthropology at the Forsyth Dental Infirmary.
- HIROSHI IBAYASHI, M.D., D.M.S., Research Fellow in Pharmacology in the School of Dental Medicine (through September 30, 1962).
- JAMES T. IRVING, PH.D., M.D., Professor of Physiology at the Forsyth Dental Infirmary.
- JOSEPH P. JAZOWSKI, D.M.D., Associate Clinical Professor of Prosthetic Dentistry (died September 8, 1962).
- LEIF B. JOHANNESSEN, D.M.D., Research Associate in Dental Medicine.
- BIRGIT I. JOHANSSON, D.D.S., Assistant in Dental Medicine.
- ROBERT KILPATRICK, M.R.C.P., M.D., Research Associate in Pharmacology in the School of Dental Medicine (through August 15, 1962).
- Young H. Kim, D.D.S., Instructor in Orthodontics.
- LAURE LEBRET, D.F.M.P., Instructor in Orthodontics.
- ROBERT C. LINCOLN, D.M.D., Instructor in Oral Surgery.
- MAX LISTGARTEN, D.D.S., Research Fellow in Periodontology.
- Walter J. Loesche, d.m.d., Research Fellow in Periodontology.
- PAUL K. Losch, D.D.S., Associate Professor of Pediatric Dentistry at the Children's Hospital and Chief of the Dental Service at the Children's Hospital Medical Center.
- ROBERT J. MATUSOW, D.M.D., Instructor in Operative Dentistry.
- Salvatore A. Migliore, d.d.s., Research Fellow in Orthodontics.
- RICHARD L. MINER, D.D.S., Instructor in Oral Surgery.
- COENRAAD F. A. MOORREES, D.D.S., Associate Professor of Orthodontics at the Forsyth Dental Infirmary.
- PAUL L. Munson, Ph.D., Associate Professor of Pharmacology in the School of Dental Medicine.
- John Nalbandian, d.M.d., Research Associate in Periodontology (from August 1, 1962).
- Rudolf Naujoks, d.M.d., Visiting Lecturer on Dental Medicine (through August 31, 1962).
- Louis A. Norton, D.M.D., Research Fellow in Orthodontics.
- JOSEPH C. OAKLEY, D.M.D., Assistant in Dental Medicine.

SCHOOL OF DENTAL MEDICINE

- J. Howard Oaks, D.M.D., Instructor in Operative Dentistry, Assistant Dean of the School of Dental Medicine for Student Affairs and Tutor in Medical Science.
- GERALD L. O'NEILL, D.M.D., Assistant Clinical Professor of Operative Dentistry.
- Tai-Chan Peng, M.D., Research Fellow in Pharmacology in the School of Dental Medicine.
- ERIK G. RASMUSSEN, D.D.S., Research Fellow in Bacteriology.
- EARLE H. ROSENBERG, D.M.D., Instructor in Dental Medicine.
- EDWARD ROSENTHAL, D.M.D., Assistant in Orthodontics.
- Julian M. Rothblatt, D.M.D., Instructor in Orthodontics.
- EMILE C. A. SAMAHA, D.M.D., Instructor in Prosthetic Dentistry.
- JAMES H. SHAW, PH.D., Associate Professor of Biological Chemistry in the School of Dental Medicine.
- EDWARD I. SILVER, D.M.D., Lecturer on Orthodontics.
- SIGMUND S. SOCRANSKY, D.D.S., Associate in Dental Medicine at the Forsyth Dental Infirmary.
- MORTON SPECK, D.M.D., Assistant in Orthodontics.
- JAMES SPRINGER, D.M.D., Instructor in Dental Medicine.
- Burt D. Stern, D.M.D., Research Associate in Periodontology.
- WARD R. STOOPS, D.M.D., Instructor in Operative Dentistry (through August 31, 1962).
- Moses S. Strock, D.M.D., Associate Clinical Professor of Dental Medicine.
- FRANK R. Susi, D.M.D., Research Fellow in Periodontology.
- LENNARD T. SWANSON, D.M.D., Clinical Associate in Orthodontics.
- EDWARD A. SWEENEY, D.M.D., Research Fellow in Pediatric Dentistry.
- NORTON S. TAICHMAN, D.D.S., Research Fellow in Periodontology.
- Armen H. Tashjian, Jr., M.D., Research Fellow in Pharmacology in the School of Dental Medicine.
- JOHN B. TAYLOR, D.D.S., Instructor in Prosthetic Dentistry.
- KAMAL D. THANIK, B.D.S., Instructor in Dental Medicine.
- CLAUDE W. THOMPSON, JR., D.M.D., Instructor in Operative Dentistry.

HARVARD UNIVERSITY

- G. EARL THOMPSON, D.M.D., Associate Clinical Professor of Operative Dentistry and Director of the Clinic.
- NORMAN TRIEGER, D.M.D., Clinical Associate in Dental Medicine. Johannes Van Houte, B.D.S., Research Fellow in Dental Medicine.
- Myron J. Van Leeuwen, d.d.s., Assistant Clinical Professor of Operative Dentistry.
- JAMES J. VOGEL, PH.D., Research Fellow in Biological Chemistry. DAVID WEISBERGER, D.M.D., M.D., Professor of Dental Medicine

and Chief of the Dental Department at the Massachusetts General Hospital.

- WILLIAM D. WELLOCK, D.M.D., M.P.H., Lecturer on Public Health Dentistry.
- HERBERT WELLS, D.M.D., Associate in Pharmacology in the School of Dental Medicine and Tutor in Medical Science.
- PHILIP H. WHITE, D.M.D., Lecturer on Oral Surgery.
- WILLIAM L. WILSON, D.M.D., Lecturer on Orthodontics.
- ROY E. WUTHIER, PH.D., Research Fellow in Biological Chemistry at the Forsyth Dental Infirmary and Tutor in Medical Science.
- GEORGE H. WYSHAK, PH.D., D.M.D., Instructor in Dental Medicine. Peter Kai-jen Yen, D.M.D., Clinical Associate in Dental Medicine (resigned November 15, 1962).
- S. JEROME ZACKIN, D.M.D., Research Associate in Dental Medicine.

SCHOOL OF DENTAL MEDICINE

ANNOUNCEMENT OF COURSES

During the first two academic years, dental and medical students pursue courses of study that are alike in philosophy and objectives but that differ in content. Special exercises have been devised for dental and medical students to illustrate for each group how the basic sciences serve their respective professions. Tutorial study of dental students is under the direction of the dental staff.

Oral Histology and Pathology — 3rd and 4th years. Assistant Professor Goldhaber; Drs. Albright, Nalbandian, Stern, and Zack-In.

The teaching in the third year begins with a microscopic laboratory course and a series of discussions devoted to the histology and pathology of the tissues of the oral cavity and is augmented in the third and fourth years by the clinical teaching staff through many activities in the clinic and in the hospitals.

Dental Anatomy — 1st semester 3rd year. Assistant Professor Van Leeuwen and Dr. Oaks.

Instruction in dental anatomy and tooth morphology. Special emphasis is placed on individual tooth form and the relationship of the tooth to adjacent teeth, opposing teeth and supporting tissue. Technique practice in reproduction of tooth form is stressed using natural extracted teeth.

Radiology — 3rd and 4th years. Dr. DEWILDE.

Principles of applied roentgenology and the interpretation of radiographs, with consideration of the electro-physical basis of roentgenology, are covered in the third year. Practice in radiological technique and interpretation is given in both years.

Operative Dentistry — 3rd and 4th years. Associate Professor G. E. Thompson and Assistant Professor Van Leeuwen; Drs. Brudevold, Etherington, O'Neill, Adams, Bailey, C. Cohen, Haynes, Matusow, Oaks, and C. W. Thompson.

Early student-patient contact and immediate clinical application of learned technical procedures are emphasized. In the third year instruction is given in oral hygiene, accepted methods of dental pro-

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phylaxis and technique of cavity preparation in conjunction with a study of the various types of restorative materials.

In the fourth year gold foil technique is given, new operative procedures introduced, and clinical practice in all phases of operative procedure is continued.

Prosthetic Dentistry — 3rd and 4th years. Assistant Professors Ehr-LICH and FARRELL; Drs. Atwood, FISHMAN, GOLD, SAMAHA, and TAYLOR.

Prosthetic dentistry which includes complete, fixed and removable prosthesis is taught in the third and fourth years. Through lectures, conferences and demonstrations the student receives clinical and laboratory instruction in the anatomy and physiology of the mouth as it applies to prosthetic dentistry, and in the materials and techniques of prosthetic restoration directed toward oral health, function and aesthetics. Every effort is made to provide early clinic contacts and to teach technique on clinic cases. The high teacher-student ratio, small classes and special physical facilities favor this type of instruction.

Dental Medicine — 3rd and 4th years. Professor Weisberger; Drs. TRIEGER, BOOTH, CHRISTMAN, OAKLEY, ROSENBERG, and WYSHAK.

A course devoted to the diagnosis and treatment of oral diseases, i.e., diseases of the periodontium, dental pulp, oral mucosa and other oral structures together with their correlation to systemic conditions. Lectures, seminars, clinical practice and observation both in the Dental Infirmary and at the Massachusetts General Hospital.

Infirmary procedures, identification of oral structures, methods of oral examination, history taking, and common methods of diagnosis for dental and oral disease are given in both years, supplemented by practice in the general clinic.

Periodontics — 3rd and 4th years. Associate Professor Goldhaber; Drs. Epstein, Socransky, Nalbandian, Stern, and Zackin.

The student is taught to recognize and diagnose periodontal disease and to comprehend its pathogenesis. He is expected to understand the role of local etiological factors as well as the part played by systemic disease in modifying tissue response to local irritations.

With regard to therapy, emphasis is placed on the elimination of local factors and the institution of preventive procedures. In addition,

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he is taught the principles of occlusal equilibration and splinting of loose teeth. All students are required to perform periodontal surgery.

Pharmacology in Clinical Dentistry — 2nd semester 4th year. Dr. Trieger; Drs. Munson, Hirsh, and Wells.

Practical recommendations and theoretical bases for the use of drugs by the dental practitioner. The more important classes of drugs used in medicine will also be considered, particularly where their use necessitates modification of the usual dental treatment.

Oral Surgery — 3rd and 4th years. Professor Weisberger; Drs. Guralnick, DeWilde, Booth, Christman, Lincoln, and Miner.

The students are taught through lectures and seminars the principles of surgery as applied to exodontia, minor oral surgery, maxillofacial surgery and fractures and anaesthesia.

Individual clinical instruction in exodontia, minor oral surgery and anaesthesia is given at the Dental Infirmary.

In the fourth year students are assigned to the Massachusetts General Hospital as clinical clerks on the Dental Service. At the hospital more extensive surgery of the oral cavity including traumatic injuries to the face and jaws is observed. The student takes active part in the study and treatment of such cases.

Pediatric Dentistry — 3rd and 4th years. Associate Professor Losch and Drs. Hoover and Budde.

Lectures and demonstrations introduce the subject in the third year with emphasis on the physical and psychological development of the child. In the general clinic, the student, under supervision, practices routine dental care for children and learns principles of patient and parent instruction in oral hygiene and personal caries control measures.

In the fourth year, the student continues practice in pediatric dentistry in the general clinic. In addition, he visits The Children's Hospital Medical Center where, under the guidance of the dental staff, he views those conditions of both in- and out-patients best seen in a hospital atmosphere. Special consideration is given to those patients whose systemic disease includes oral manifestations. Individually, he observes the staff at dental operations performed in the main operating rooms of the hospital. Ward rounds by the dental staff are given regularly. Students attend the clinico-pathological conferences and are assigned to other teaching exercises given by the general staff of the hospital.

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Orthodontics — 3rd and 4th years. Assistant Professor M. Cohen; Drs. Moorrees, Swanson, Rothblatt, Binder, and Rosenthal.

Clinical instruction consists in the observation of developing dentures, the use of preventive measures, and the use of selected orthodontic treatment procedures by each student. Emphasis is placed on the development of sound clinical judgment as a basis for the selection and care of orthodontic patients within the scope of general practice. Opportunity is provided for experience beyond the required minimum for those students with special interest and ability. Discussions and demonstrations supplement the work of the clinic. Each student is required to present a paper in seminar during his junior year and in the last semester of the senior year each student is responsible for the presentation of one or more cases he has treated during his clinical years. In addition to lectures on growth and development, mechanotherapy, and tissue response to tooth movement, lectures and demonstrations are given in cephalometrics, cleft palate, and surgical orthodontics. Observation of a great variety of orthodontic treatments is provided at The Children's Hospital Medical Center.

Endodontics - 3rd and 4th years. Drs. O'Neill and Matusow.

In the third year the clinical and pathological presentation of pulpalperiapical disease is integrated with the teaching of oral pathology. In this manner the student achieves an early appreciation of the pathological course of events and the clinical symptoms which necessitate endodontic therapy. Clinical demonstrations and laboratory technique exercises are given on bacteriological culturing, biomechanical debridement and canal obturation techniques preceding the assignment of patients for clinical experience.

In the fourth year diagnostic conferences and clinical experience involving conservative root canal therapy and the indications and application of periapical surgery round out the student's introduction to the field.

Introduction to Dental Research — 1st semester 3rd year. Drs. Wells, Munson, and Associates.

A series of ten or more one-hour lectures on specific research projects available for student participation in the research laboratories of the School of Dental Medicine.

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Research Project — 3rd and 4th years. Associate Professor Munson and Associates.

In order to gain a more realistic appreciation of the nature of scientific research, all students of the Harvard School of Dental Medicine, as a requirement for graduation, participate in a laboratory or clinical investigation of their own choosing. By the end of the first semester of the third year, after completion of the course, Introduction to Dental Research, the student has chosen a research supervisor from the faculty and the subject to be investigated. He presents a plan for his research project in the form of a seminar at the beginning of the second semester. During the rest of the third year, and in some cases during the summer months, he attempts to master the techniques necessary for his work. During the fourth year, with the advice and aid of the faculty research supervisor, the project is carried forward, and at the end of the year, the student presents a seminar summarizing his results. Both the third- and fourth-year seminars are also required in written form for permanent reference in the Library.

Nutrition — 1st and 2nd semesters 3rd year. Associate Professor Shaw.

Discussion of relations of nutrition to the development, maturation and maintenance of the oral tissues. Discussion of nutritional requirements, relative values of various foods and the preparation of diet histories. Clinic practice in the evaluation of diet histories and in the development of suitable recommendations for the patient.

Genetics and Anthropology — 1st semester, 3rd year. Assistant Professor Hunt.

Lectures are given with the purpose of reviewing the principles of genetics, including studies of populations. A brief survey of anthropology is given with major emphasis on evolutionary changes in the head. Dental implications are stressed throughout the course.

Fundamentals of Occlusion — 1st and 2nd semesters 4th year. Assistant Professor M. Cohen, Dr. Epstein and Associates.

This course represents a combined effort of many disciplines to provide basic information on the stomatognathic system as a background for an understanding of occlusion. Lectures include such areas as embryology and growth and development of the face and dentition; anatomy and physiology of the temporomandibular articulation and

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facial musculature; relationship of the jaws and teeth in both functional and non-functional movements; comparison of natural and artificial dentitions.

Public Health Dentistry — 3rd year. Assistant Professor Dunning; Dr. Wellock and Associates from the Medical School and School of Public Health.

Public health principles and practices with emphasis on the participation of the dentist. Elements of biostatistics and epidemiology. Lectures, seminars and field work.

Practice Management and Dental Jurisprudence — 2nd semester 4th year. Dr. Dunning; Dr. Ford from the Medical School.

Lectures and seminars on practice management, ethics and jurisprudence.

Psychosocial Problems in Dentistry — 3rd and 4th years. Drs. Giddon, Hunt and Trieger of the School of Dental Medicine; Drs. Baldwin, Hackett, Kravitz, Orne, Shor, Busfield, and Gustafson of the Medical School, and Dr. King of the University Health Service.

A lecture and seminar series focusing on those aspects of psychiatry, psychology, and sociology which are important to the practice of dentistry. Topics to be covered are: the dentist in society, dentist-patient relationship, the meaning of dental procedures to the patient, the significance of dento-facial deformities, recognition of behavior pathology, management of problem patients, "psychosomatic" dental disorders, non-organic factors in pain, theoretical and practical aspects of hypnosis, psychophysiology of the oral cavity, and research methodology. Case presentations of clinic patients will supplement these discussions.

History of Dentistry — 3rd year. Dr. OAKS.

A course designed to provide a brief background in the ancient and recent developments in dentistry. Several lectures will be devoted to the Harvard Dental School, the School of Dental Medicine, and its affiliated organizations.

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The tabulated hours below indicate the approximate allotment of

time for the third and fourth academic years.

As the entering classes are limited, it is possible to reduce the time usually involved in courses of dental techniques. Individual instruction, demonstrations, seminars and conferences replace the traditional lecture system to a large degree.

	<i>5</i>				
	Lectures, Lab. or			Lectures, Lab. or	
THIRD YEAR	Demon-		FOURTH YEAR	Demon-	
	stration	Clinic	History of Dentistry	stration 6	Clinic
Oral histology and	70			8	20
pathology	70	_	Radiology		118
Dental anatomy	45		Operative dentistry	36	110
Radiology	12	160	Prosthetic dentistry		
Operative dentistry.	120	100	Complete denture		
Oral hygiene and	- 0		prosthesis	10	103
prophylaxis	18	20	Removable denture		
Prosthetic dentistry			prosthesis	10	90
Complete denture			Fixed partial pros-		
prosthesis	90	144	thesis	97	196
Removable partial			Dental medicine	13	_
prosthesis	42	72	Clinical clerkship,		
Dental medicine	16		Massachusetts		
Dental medicine,			General Hospital		60
Massachusetts			Oral diagnosis	13	60
General Hospital	_	4	Periodontics	8	72
Oral diagnosis	16	52	Dental materia		
Periodontics	32	52	medica	16	_
Oral surgery	_	3	Oral surgery and		
Oral surgery,			anaesthesia	32	40
anaesthesia	8	_	Pediatric dentistry at	_	•
Pediatric dentistry	I 2	20	the Children's Hos-		
Orthodontics	68	120	pital	_	35
Endodontics	10	20	Orthodontics	24	126
Introduction to dental			Endodontics	10	30
research	24		Student research and		,
Student research and			seminar	24	_
seminar	75		Practice management		
Nutrition	8		and dental juris-		
Public health dentistry		9	prudence	6	
Genetics	16	-	Psychosocial problems		
Fundamentals of oc-	10		in dentistry	20	
clusion	32	-	m deficiency	20	
Public health dentistry		0			
Psychosocial problems	, -	9			
in dentistry	, 10				
activity	10	27			

DEGREES CONFERRED

On June 14, 1962 Fifteen Degrees were Conferred as Follows:

D.M.D.

Barry Joseph Agranat, A.B. (Brandeis Univ.) 1958.

Paul Richard Courant, s.B. (Tufts Univ.) 1958.

Robert Mark Donahue, s.B. (Tufts Univ.) 1957.

Cedric Frasier Harring, Jr., A.B. (Colby Coll.) 1957.

Melvin Kahn, A.B. 1958.

Donald Lewis Leake, A.B. (Univ. of Southern California) 1953.

Charles Melvin Mann, A.B. (Boston Univ.) 1953.

Edward Conroy McNulty, s.B. (Coll. of the Holy Cross) 1957.

Stephen Avrom Miller, A.B. 1958.

Louis Arthur Norton, A.B. (Bowdoin Coll.) 1958.

Eugen Albert Petersen, s.B. (St. Lawrence Univ.) 1954.

Donald Stephen Sherman, A.B. (Brandeis Univ.) 1958.

Frank Robert Susi, s.B. (Boston Coll.) 1958.

D.M.D. cum laude

Kenneth Sidney Berman, A.B. 1958.

D.M.D. cum laude for Thesis in a Special Field Duane Francis Carbone, A.B. 1958.

SCHOOL OF DENTAL MEDICINE STUDENTS

FOURTH YEAR CLASS (1963)

Bailey, Nelson Edgar, A.B. (Susquehanna Univ.) 1957. Selinsgrove, Pa. *Dogon, Israel Leon (Univ. of Witwatersrand), L.D.S. (Univ. of London) 1957. [Univ. of London Dental School]. Evans, Robert Edgar, A.B. (Hamilton Coll.) 1959. Leonardsville, N.Y. Gamm, Stephen Harvey, A.B. (Brandeis Univ.) 1959. Milton Goldin, Joel, A.B. (Amherst Coll.) 1959. Yonkers, N. Y. Kaufman, Elias. Jacob, A.B. (Cornell Univ.) 1959. Brooklyn, N. Y. Kushnir, Harry, A.B. 1959. Newton Centre *Lear, Clement Samuel Cope (Canterbury Coll.), B.D.S. (Univ. of Otago) 1953. [Univ. of Otago Dental School]. Boston McLeod, Hugh Stanford, A.B. (Reed Coll.) 1957. Kansas City, Mo. O'Connor, John Edmond, A.B. (Boston Coll.) 1959. Jamaica Plain Valente, Louis John (Northeastern Univ.) Milford

THIRD YEAR CLASS (1964)

Carlin, Richard Thomas, A.B. (Clark Univ.) 1960. Tarrytown, N. Y. Falla, William Stinson, s.B. (Boston Coll.) 1960. Harwichport Hodge, Archibald Talbot, A.B. (Amherst Coll.) 1958. [Univ. of Rochester School of Medicine]. Rochester, N. Y. Poczatek, Zygmunt Walente, s.B. (Boston Coll.) 1960. New Bedford Stark, Lawrence Wendell, A.B. (Duke Univ.) 1953. Jamaica Plain

SECOND YEAR CLASS (1965)

Beck, Robert Lee, A.B. (*Univ. of Virginia*) 1958. San Diego, Calif. Bleil, Bruce Thompson, A.B. (*Rice Univ.*) 1961. Houston, Texas Davidson, William Martin, A.B. (Dartmouth Coll.) 1960.

Garant, Philias Roy, s.B. (Tufts Univ.) 1958.

Gordon, George David, A.B. (Bowdoin Coll.) 1961.

Harden, Lewis Brown (lowa State Teachers Coll.) Cedar Falls, lowa Manasek, Francis John, A.B. (New York Univ.) 1961.

Bronx, N. Y.

Mull, John Dennis, A.B. 1960.

Pekruhn, Richard Barnhill, A.B. (Oberlin Coll.) 1961.

Steubenville, Ohio

* Transferred to third year class.

[‡] Admitted on basis of three years' college work.

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Suskin, William Howard, A.B. (New York Univ.) 1947. Her	wlett, N.Y.
Williston, William Curtis, s.B. (Coll. of the Holy Cross)	1957.
	Springfield

FIRST YEAR CLASS (1966)

Atikian, Hrair H, A.B. (New York Univ.) 1962. Boonton, N. J.
Binder, Robert Edward, B.S. (Northeastern Univ.) 1960. Medford
Bowen, Charles Raymond, A.B. (Susquehanna Univ.) 1962.
Selinsgrove, Pa.
Clausen, Jack Lewis, s.B. (Stanford Univ.) 1961. Hollywood, Calif.
‡Cotmore, John Mason (Temple Univ.) London, England
Gettleman, Lawrence Marvin, A.B. (Rutgers Coll.) 1962.
Miami Beach, Fla.
Gracia, Robert Manuel, A.B. (Coll. of the Holy Cross) 1962.
New Bedford
Mulvihill, James Edward, A.B. (Coll. of the Holy Cross) 1962.
Wethersfield, Conn.
Perkell, Joseph Shaile, s.B. (Massachusetts Inst. of Technology) 1962.

Robinson, Jiles Leslie, Jr., A.B. 1962. Washington, D. C. Siegel, Carl Leonard, A.B. (Lafayette Coll.) 1962. New York, N. Y.

Stanley, Robert Louis, A.B. (Coll. of the Holy Cross) 1962.

Brooklyn, N. Y.

Wing, Kenneth Richmond, A.B. (Wesleyan Univ.) 1962.

Cranston, R.I.

‡ Admitted on basis of three years' college work.

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Colleges Represented

Amherst College 2	Oberlin College
Boston College 3	Reed College
Bowdoin College	Rice University
Brandeis University	Rutgers University
Canterbury College	Stanford University
Clark University	Susquehanna University 2
Duke University	Temple University
Cornell University	Tufts University
Dartmouth College 1	Virginia, University of
Hamilton College	Wesleyan University
Harvard University 3	Witwatersrand, University of . 1
Holy Cross, College of the 4	Total number of students 40
Iowa State Teachers College 1	Total number of students 40
Lafayette College 1	
Massachusetts Institute of	Entered advanced standing 3
Technology	Number of colleges represented 28
New York University 3	Number of college graduates . 37
Northeastern University 2	Number of non-graduates 3

Schools Represented by Students who Entered Harvard School of Dental Medicine with Advanced Standing

London Hospital Dental School	I
University of Otago Dental School	I
University of Rochester School of Medicine	I
Total	3

PROFESSORS EMERITI

Professor of Medicine

Professor of Research Medicine

James Jackson Putnam Professor of

Fuller Albright, M.D. Joseph C. Aub, M.D. James B. Ayer, M.D.

HERRMAN L. BLUMGART, M.D. C. SIDNEY BURWELL, M.D.

ALLAN M. BUTLER, M.D. EDWARD D. CHURCHILL, M.D. STANLEY COBB, M.D.

EDWIN B. DUNPHY, M.D.

CYRUS H. FISKE, M.D. FELIX G. FLEISCHNER, M.D. ALEXANDER FORBES, M.D. CHESTER N. FRAZIER, M.D.

A. BAIRD HASTINGS, PH.D.

Parker Heath, M.D.

A. LeRoy Johnson, d.m.d.
Chester M. Jones, m.d.
Varaztad H. Kazanjian, d.m.d.,
M.d.
William E. Ladd, m.d.

SAMUEL A. LEVINE, M.D.
CHARLES C. LUND, M.D.
LELAND S. MCKITTRICK, M.D.
J. HOWARD MEANS, M.D.

JOE V. MEIGS, M.D. PHILIP E. MELTZER, D.M.D., M.D.

Neurology Professor of Medicine Samuel Levine Professor of Medi-Professor of Pediatrics John Homans Professor of Surgery Bullard Professor of Neuropathology Henry Willard Williams Professor of Ophthalmology at the Massachusetts Eye and Ear Infirmary Professor of Biological Chemistry Clinical Professor of Radiology Professor of Physiology Edward Wigglesworth Professor of Dermatology Hamilton Kuhn Professor of Biological Chemistry Clinical Professor of Ophthalmol-Professor of Clinical Dentistry Clinical Professor of Medicine Professor of Plastic Surgery William E. Ladd Professor of Child Surgery Clinical Professor of Medicine Clinical Professor of Surgery Clinical Professor of Surgery

Jackson Professor of Clinical Medi-

Clinical Professor of Gynecology

Clinical Professor of Otology

cine

PROFESSORS EMERITI

LEROY M. S. MINER, D.M.D., M.D. CHARLES G. MIXTER, M.D. FRANCIS C. NEWTON, M.D. JOHN C. ROCK, M.D. LEROY A. SCHALL, M.D.

GEORGE C. SHATTUCK, M.D.

RICHARD M. SMITH, M.D.

HARRY C. SOLOMON, M.D. FRITZ BRADLEY TALBOT, M.D. KURT H. THOMA, D.M.D.

ERNEST E. TYZZER, M.D.

Frederick H. Verhoeff, M.D. David H. Walker, M.D.

CHARLES J. WHITE, M.D.

JAMES C. WHITE, M.D.

PAUL I. YAKOVLEV, M.D.

Professor of Clinical Oral Surgery Clinical Professor of Surgery Clinical Professor of Surgery Clinical Professor of Gynecology Walter Augustus Lecompte Professor of Otology and Professor of Laryngology

Clinical Professor of Tropical Medicine

Thomas Morgan Rotch Professor of Pediatrics

Professor of Psychiatry

Clinical Professor of Pediatrics Professor of Oral Surgery and

Charles A. Brackett Professor of Oral Pathology

George Fabyan Professor of Comparative Pathology and Professor of Tropical Medicine

Professor of Ophthalmic Research Walter Augustus Lecompte Professor of Otology

Edward Wigglesworth Professor of Dermatology

Professor of Surgery at the Massachusetts General Hospital

Clinical Professor of Neuropathology

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